PROTEX

Weatherstrips

PROTEX WEATHERSTRIP MF'G.CO.
CHICAGO · ILLINOIS

THE *Blue Book* OF WEATHERSTRIPS

PROTEX WEATHERSTRIP MANUFACTURING CO.

General Office and Factory . 2308 W. 69th St., Chicago, Ill.

Representatives and Sales Agents in all
Principal Cities in U. S. A. and Canada

THE COMPANY The Protex Weatherstrip Manufacturing Company is an organization of highly skilled technicians of long experience in the development, manufacture, production and installation of weathering equipment for doors and windows. Progressive and constantly alert to the increasingly exacting requirements of modern building construction, we are prepared to offer specialized service in whatever degree is required in this important phase of the insulation problem and to assist, upon request, in the preparation of details and specifications.

THE PRODUCT Protex equipment consists of Weatherstrips, Calking, Kick Plates, Edgings, Nosings, Thresholds, Double-Glazing Panes. Protex weathering materials adaptable to all types of metal or wood windows, are the result of test-proven development following scientific investigation at the University of Wisconsin and the R. W. Hunt Co. Laboratories. Protex equipment enjoys a quality reputation second to none and is designed and manufactured to give full investment value.

MATERIALS Protex metal weatherstrips are manufactured in ribbon, cross grain zinc, or commercial bronze. Some strips are formed in brass and aluminum. Thresholds and saddles are extruded in architectural bronze or aluminum to give greater accuracy to design than can be secured by casting.

INSTALLATIONS The use of Protex equipment in thousands of buildings both large and small across the country attest to the high standard of quality in materials and installation service maintained to meet rigid specifications. Following are a few of the many Protex equipped buildings of recent date:

Harvey S. Firestone Residence,
Akron, Ohio
John Carroll University Bldgs.,
Cleveland, Ohio
Department of Interior Bldgs.,
Washington, D. C.
State Office Bldg.,
Madison, Wis.
Signal Mt. Hotel,
Signal Mt., Tenn.
Aronomick School,
Philadelphia, Pa.

VETERANS FACILITIES

Danville, Ill., Detroit, Mich.
Ft. Lyon, Colo., Outwood, Ky.
Biloxi, Miss., Milwaukee, Wis.

U. S. FEDERAL HOUSING

Will Rogers Courts,
Oklahoma City, Okla.
University Courts,
Columbia, S. C.
Lincoln Gardens,
Evansville, Ind.
Lakeside Terrace,
Cleveland, Ohio

BARRACKS BUILDINGS OR O.C. AND N.O.C. QUARTERS

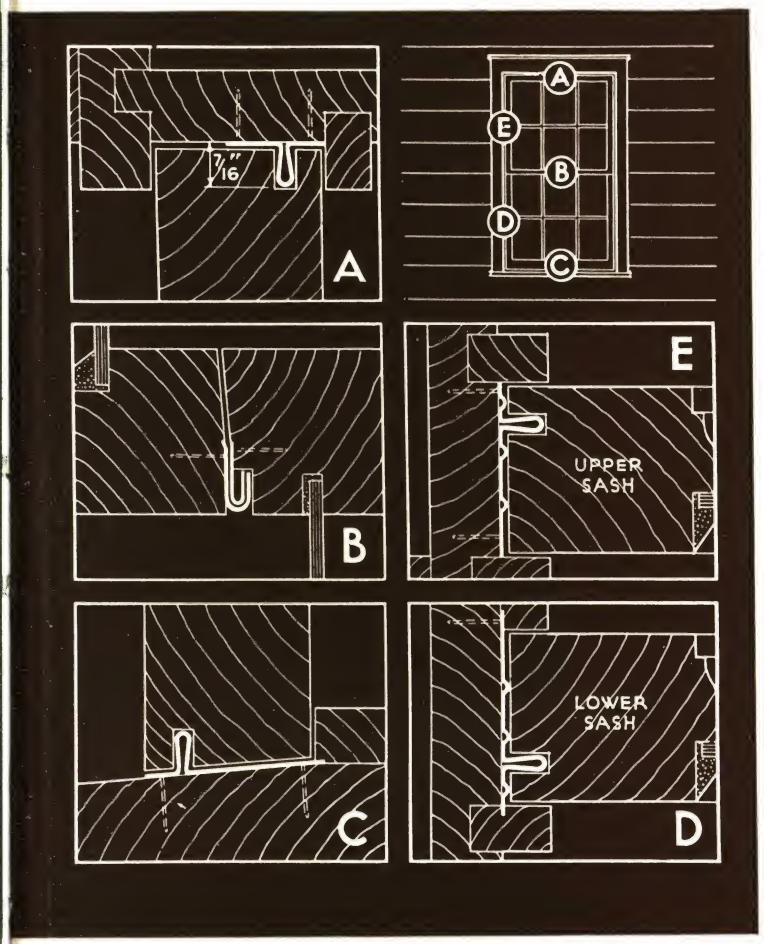
Maxwell Field, Ala.
March Field, Cal.
Fort Sam Houston, Tex.
Fort Knox, Ky.
Fort Monroe, Va.
Fort Bragg, N. C.

1200 Protex units are installed in this San Francisco Psychopathic Cancer Building

Pittsfield Building in Chicago with 2300 Protexed windows

PROTEX

Veterans Hospital at Biloxi, Miss., has over 600 openings equipped with Protex



WEATHERSTRIPS
DH • 200 • 201
DOUBLE HUNG WINDOWS

Rib Type—This type of equipment is standard for ordinary residential and commercial construction. The tongue or rib, mitered at corners, operates in accurately plowed groove in the sash. Strong concealed interlocking members are provided at meeting rails. Sash grooves can be lined with metal liners for metal to metal contact. Tests on this equipment at the University of Wisconsin Laboratories show 90% infiltration reduction.

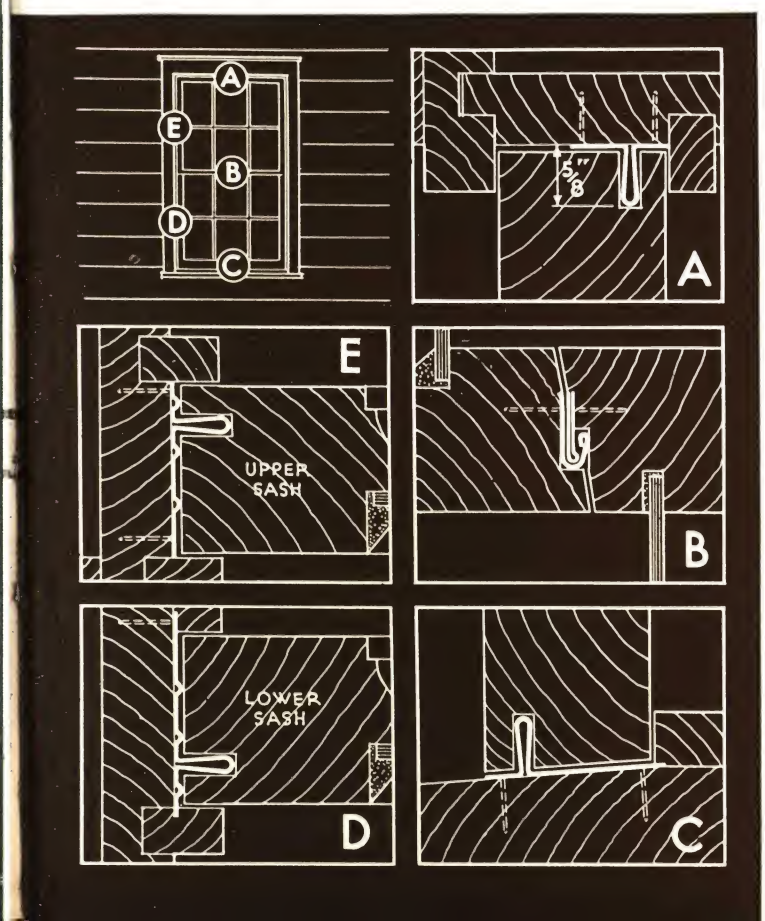
EQUIPMENT DH-200—ZINC

Location	1⅜" Sash	1¾" Sash	2¼" Sash	Ga.—In.
Head	2R	2R	2R	9—.018
Sill	4R	6R	8R	9—.018
M.R. Hook	11	11	11	12—.028
M.R. Flat	12	12	12	10—.020
Upper Sides	4C-⅜	6C-⅜	7C-⅜	9—.018
Lower Sides	6C-½	7C-½	8C-½	9—.018

EQUIPMENT DH-201—BRONZE

Head	2RB	2RB	2RB	25—.0179
Sill	4RB	6RB	8RB	25—.0179
M.R. Hook	11B	11B	11B	22—.0253
M.R. Flat	12B	12B	12B	24—.020
Upper Sides	4CB-⅜	6CB-⅜	7CB-⅜	25—.0179
Lower Sides	6CB-½	7CB-½	8CB-½	25—.0179

Alternate No. 1—Substitute Heavy Sills
Alternate No. 2—Kerf upper sides to Blind Stop



WEATHERSTRIPS
DH • 220 • 221
DOUBLE HUNG WINDOWS

High Rib Type—Extremely large double hung window openings requiring heavy sash and glass should have heavier weatherstriping members. Note the ⅝ inch rib height of equipment DH-220 and 221, which allows for greater shrinkage and expansion in the sash with no loss of efficiency. All of the members are of extra heavy gauge to withstand severe strain and usage. Do not specify this equipment for sash less than 1¾ inch thick.

EQUIPMENT DH-220—ZINC

Location	1⅜" Sash	1¾" Sash	2¼" Sash	Ga.—In.
Head	Use DH-200 in 10 ga. Zinc	2RH	2RH	10—.020
Sill		6RH	8RH	10—.020
M.R. Hook		111	111	12—.028
M.R. Flat		112	112	9—.018
Upper Sides		6CH-½	7CH-½	10—.020
Lower Sides		7CH-⅝	8CH-⅝	10—.020

EQUIPMENT DH-221—BRONZE

Head	Use DH-201 in 25 ga. Bronze	2RBH	2RBH	24—.020
Sill		6RBH	8RBH	24—.020
M.R. Hook		11B	11B	22—.0253
M.R. Flat		12B	12B	24—.020
Upper Sides		6CRH-½	7CRH-½	24—.020
Lower Sides		7CRH-⅝	8CRH-⅝	24—.020

Alternate No. 1—Substitute Heavy Sills
Alternate No. 2—Kerf upper sides to Blind Stop

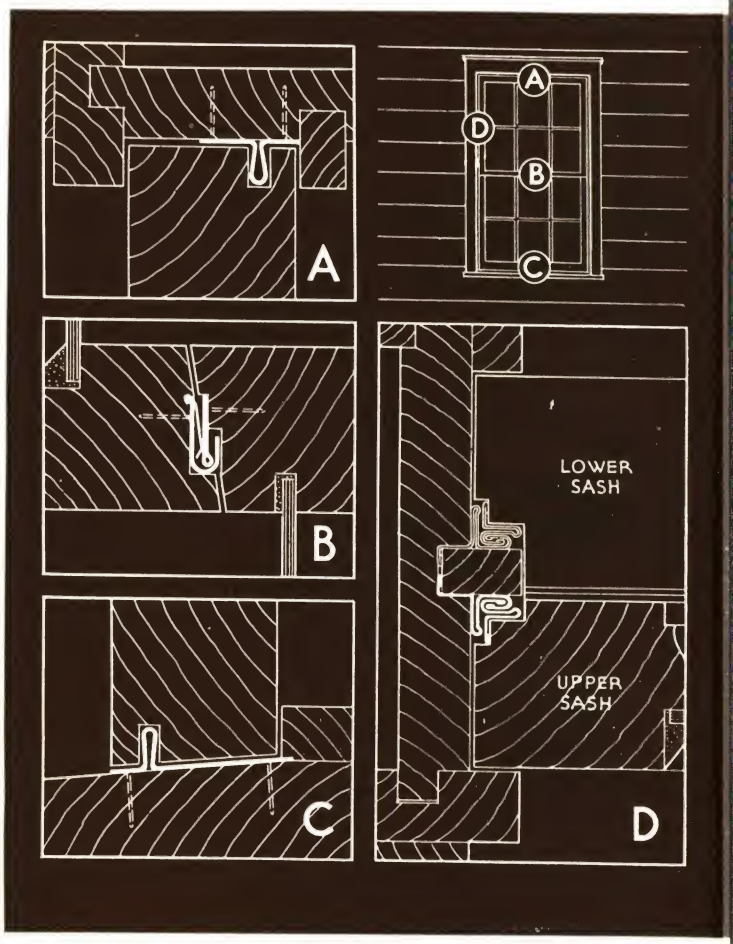
PROTEX Weatherstrips

WEATHERSTRIPS
DH • 240 • 241
DOUBLE HUNG WINDOWS

Surety Type—Adapted to all types of sash hung on weights or spring or spiral balances. Absence of side grooves and application to parting bead eliminates pulley and cord interference. The concealed, interlocking action allows for a full ¼ inch shrinkage with no loss of efficiency. Tests at University of Wisconsin Laboratories show 95% infiltration reduction with finger tip operation. They are covered by U. S. Pat. No. 1,928,948.

EQUIPMENT DH-240—ZINC AND BRONZE				
Location	1⅜" Sash	1¾" Sash	2¼" Sash	Ga.—In.
Head	2R	2R	2R	9—.018
Sill	4R	6R	8R	9—.018
M.R. Hook	11-BI	11-BI	11-BI	12—.028
M.R. Flat	112	112	112	9—.018
Upper Sides	1X-2X	1X-2X	1X-2X	32—.008
Lower Sides	1X-2X	1X-2X	1X-2X	32—.008
EQUIPMENT DH-241—BRONZE				
Head	2RB	2RB	2RB	25—.0179
Sill	4RB	6RB	8RB	25—.0179
M.R. Hook	11-B—BI	11-B—BI	11-B—BI	22—.0253
M.R. Flat	112-B	112-B	112-B	25—.0179
Upper Sides	1X-2X	1X-2X	1X-2X	32— .008
Lower Sides	1X-2X	1X-2X	1X-2X	32— .008

Alternate No. 1—Substitute Heavy Sills
Note—Give parting bead depth for 2X members

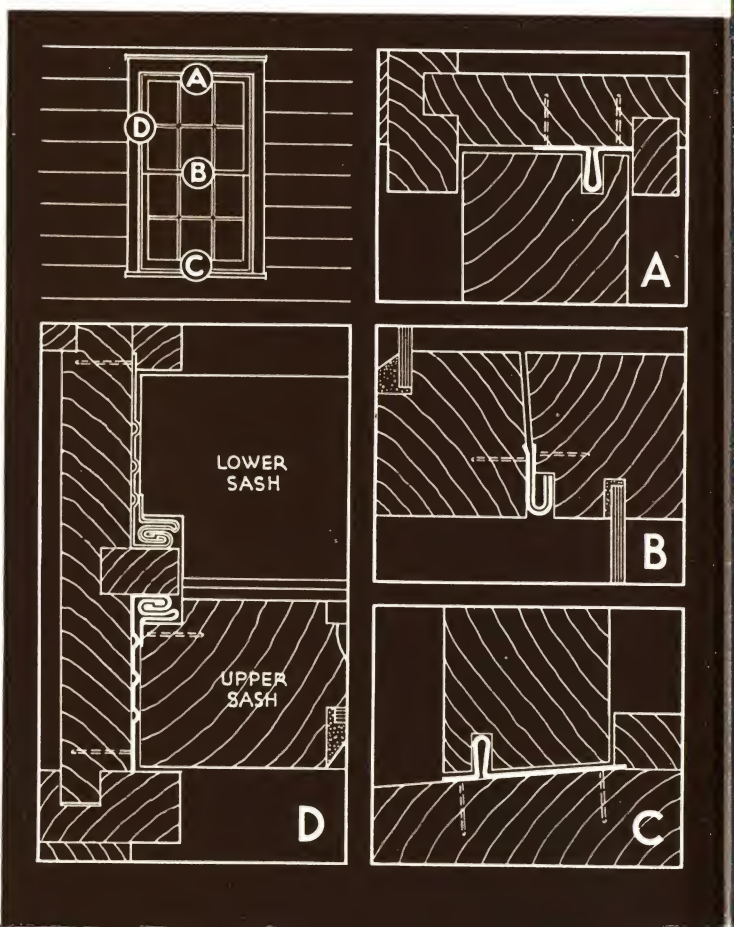


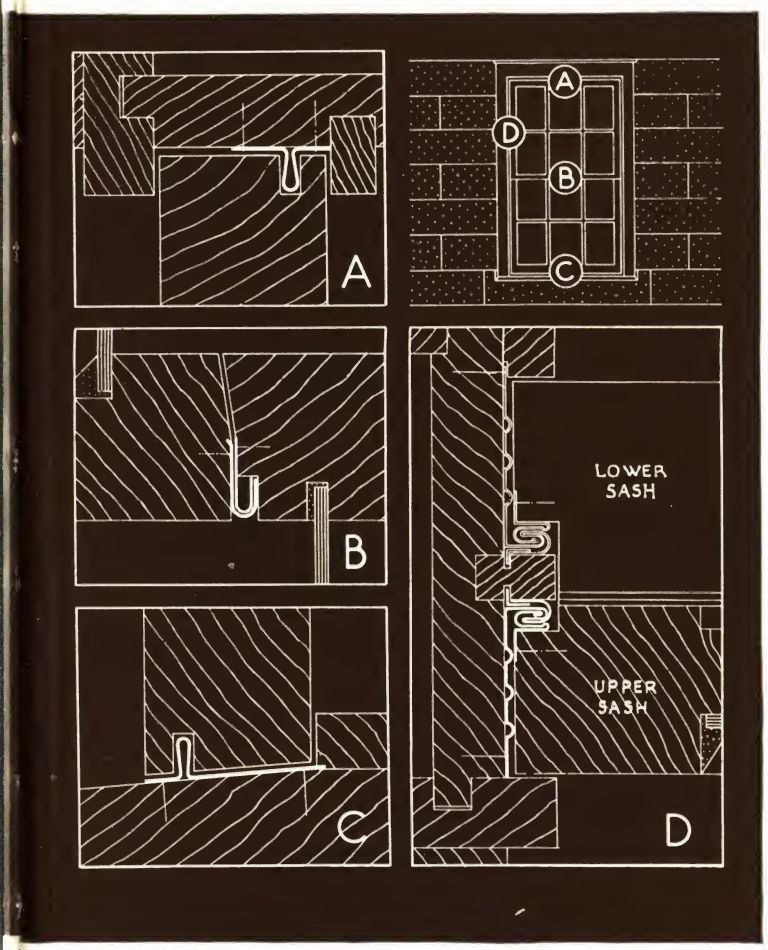
WEATHERSTRIPS
DH • 260 • 261
DOUBLE HUNG WINDOWS

Surety Type—DH-260 and 261 are identical in design with DH-240 and 241, with the exception that the side members of the strip form full jamb sash runway coverage. Note that the weathering points are at the outermost points of air or water ingress which prevents the elements from reaching any part of the otherwise exposed frame or sash. Metal operating on and in metal provides perfect sliding areas and reduces friction to a minimum.

EQUIPMENT DH-260—ZINC				
Location	1⅜" Sash	1¾" Sash	2¼" Sash	Ga.—In.
Head	2R	2R	2R	9—.018
Sill	4R	6R	8R	9—.018
M.R. Hook	11	11	11	12—.028
M.R. Flat	12	12	12	10—.020
Upper Sides	6X-5X	7X-5X	8X-5X	9—.018
Lower Sides	7X-5X	8X-5X	9X-5X	9—.018
EQUIPMENT DH-261—BRONZE				
Head	2RB	2RB	2RB	25—.0179
Sill	4RB	6RB	8RB	25—.0179
M.R. Hook	11B	11B	11B	22—.0253
M.R. Flat	12B	12B	12B	24—.0200
Upper Sides	6XB-1X	7XB-1X	8XB-1X	25—.0179
Lower Sides	7XB-1X	8XB-1X	9XB-1X	25—.0179

Alternate No. 1—Substitute Heavy Sills
Alternate No. 2—Kerf upper sides to Blind Stop





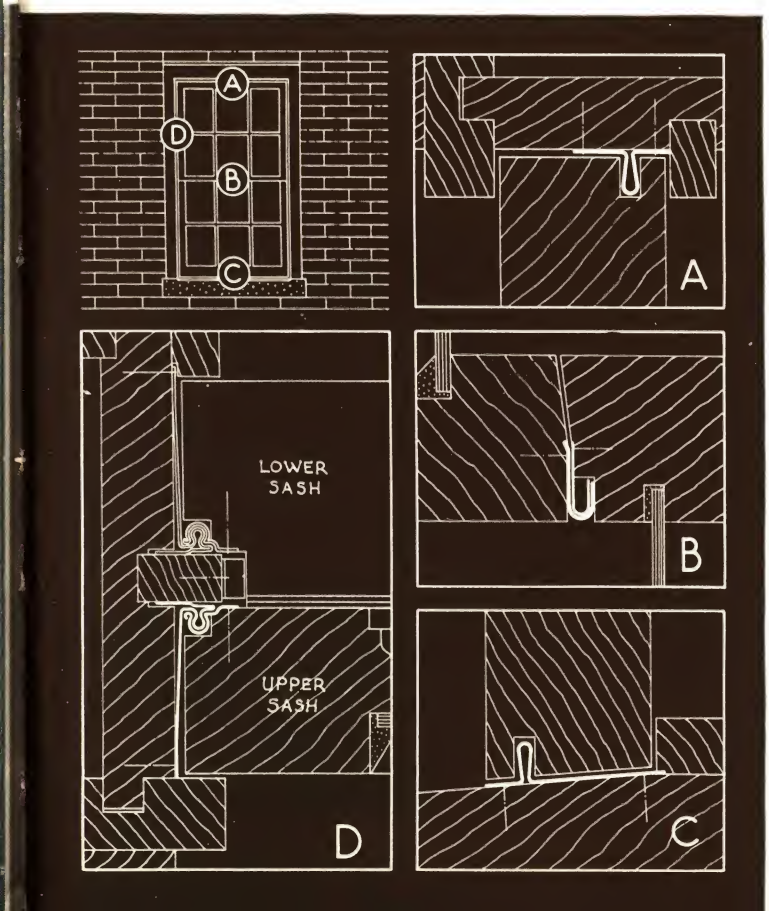
WEATHERSTRIPS
DH • 250
DOUBLE HUNG WINDOWS

Surety Type—DH-250 is similar in interlocking principles with other Surety designs. In addition to the full runway jamb member and the interlocking hook rabbeted to the sash, it has a third auxiliary angle member set loose to operate freely into a kerfed slot in the parting bead and a working slot integral with and adjacent to interlocking edge of jamb strip. This eliminates possibility of leakage behind frame strip when sash has shrunk considerably. Third member is primarily a wind stop and does not interfere or increase friction in window operation. Formed only in cross grain zinc. 1-x Spring Bronze Sash Strip may be alternated for zinc No. 5-x if preferable, allowing a greater degree of flexibility for sash expansion and contraction. Head and sill liners optional.

EQUIPMENT DH-250—ZINC

Location	1⅜" Sash	1¾" Sash	2¼" Sash	Ga.—In.
Head	2-R	2-R	2-R	9—.018
Sill	4-R	6-R	8-R	9—.018
M.R. Hook	11	11	11	12—.028
M.R. Flat	12	12	12	10—.020
Upper Sides	6X-5X-3X	7X-5X-3X	8X-5X-3X	9—.018
Lower Sides	7X-5X-3X	8X-5X-3X	9X-5X-3X	9—.018

Alternate No. 1—Substitute Heavy Sills
Alternate No. 2—Kerf upper sides to Blind Stop



WEATHERSTRIPS
DH • 270
DOUBLE HUNG WINDOWS

Tubular Type—DH-270 manufactured in cross grain is a 2 member interlocking design, having a tubed flange on the full runway strip—operating and sliding in a similar tubed member rabbeted and fastened to sash. Frame member has additional flange which operates in a kerfed slot formed in window frame adjacent to parting bead eliminating possible leakage behind strip; still maintaining a free give and take action with sash shrinkage or expansion. Standard interlocking meeting rails Nos. 11 and 12 are detailed. Heavier gauged designs—double nailing type or interlocking with additional spring bronze safety contact member may be alternated. Head and sill members are usual standard. Metal liners may be added to further reduce infiltration.

EQUIPMENT DH-270—ZINC

Location	1⅜" Sash	1¾" Sash	2¼" Sash	Ga.—In.
Head	2-R	2-R	2-R	9—.018
Sill	4-R	6-R	8-R	9—.018
M.R. Hook	11	11	11	12—.028
M.R. Flat	12	12	12	10—.020
Upper Sides	6T-1T	7T-1T	8T-1T	9—.018
Lower Sides	7T-1T	8T-1T	9T-1T	9—.018

Alternate No. 1—Substitute Heavy Sills
Alternate No. 2—Kerf upper sides to Blind Stop

PROTEX Weatherstrips

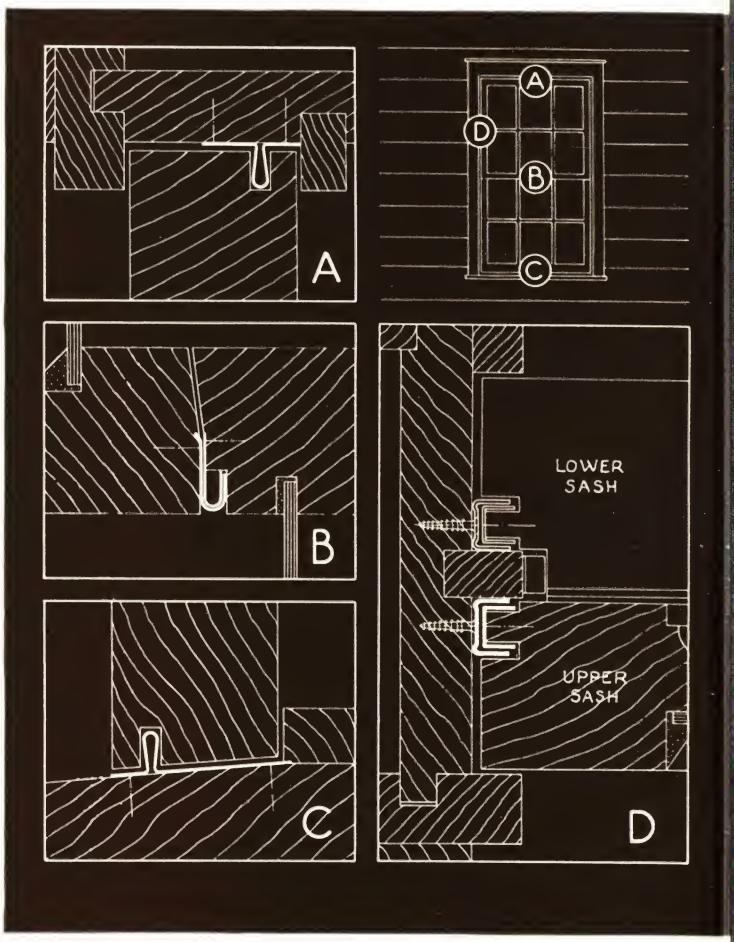
WEATHERSTRIPS
DH • 210
DOUBLE HUNG WINDOWS

Channel Type—A strong and effective installation for all types of Double Hung Windows. Extra heavy channel member fitting into grooves in sash forms a regular double rib installation. Inner member operating closely in frame channel allows frictionless metal to metal operation. Installation of frame member by screws permits easy sash installation and removal without damage to strips or sash. Design permits inner leg of channel to be coped into center of cross metal Rib Strips at Head and Sill—giving effective closures at all corners. Channel legs same length as height of Rib Strips allow for equal expansion without loss of efficiency. Metal liners of insert or nailing type for rib grooves at Head and Sill are selective at all sash perimeters.

EQUIPMENT DH-21—ZINC

Location	1⅜" Sash	1¾" Sash	2¼" Sash	Ga.—In.
Head	2R	2R	2R	9—.018
Sill	4R	6R	8R	9—.018
M.R. Hook	11	11	11	12—.028
M.R. Flat	12	12	12	10—.020
Upper Sides	26-27	26-27	26-27	9—.018
Lower Sides	26-27	26-27	26-27	9—.018

Alternate No. 1—Substitute Heavy Sills
No. 27—16 Ga. Channel Countersunk for Screws



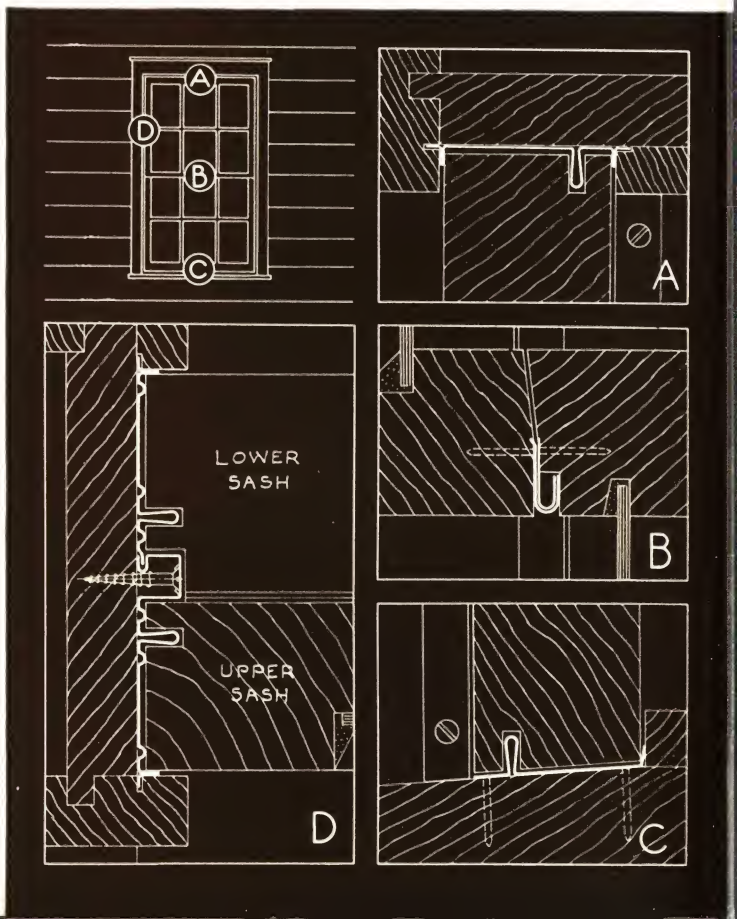
WEATHERSTRIPS
DH • 300
DOUBLE HUNG WINDOWS

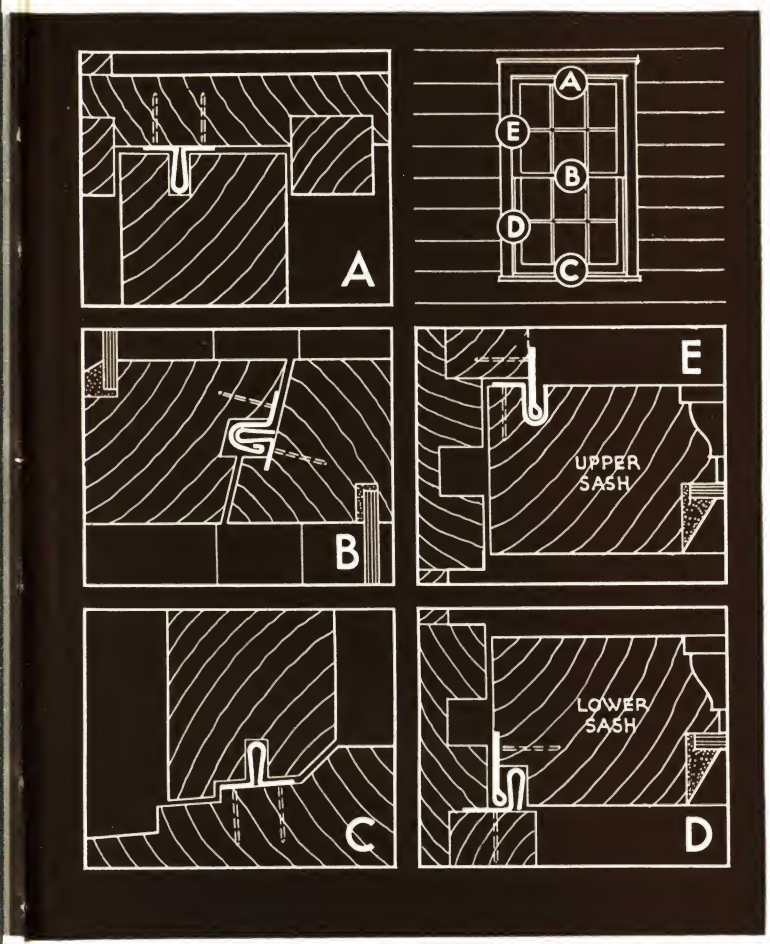
Full Opening—This installation permits use of plank or stud frames—narrow trim and mullions. Jamb members complete with integral metal parting stop. Installed full opening height of unit. Guides sash in operation by head or side spring balances. Eliminates considerable frame painting and effects a complete metal frame appearance at economical cost. Inner side guide kerfs into metal parting bead of outer guide for easy sash removal without damage to runways. Held at edges by kerfing edge to eliminate nailing. Four screws hold strips in position. Flanged sill and head members complete metal perimeters. Flanges selective, either single requiring nailing or double requiring kerfing, but eliminating all nailing, covering frame cracks.

EQUIPMENT DH-300—ZINC

Location	1⅜" Sash	1¾" Sash	2¼" Sash	Ga.—In.
Head	4-HF	6-HF	Not stocked	9—.018
Sill	4-RF	6-RF	Not stocked	9—.018
M.R. Hook	11	11	Not stocked	12—.028
M.R. Flat	12	12	Not stocked	10—.020
Outer Guide	2-M	3-M	Not stocked	9—.018
Inner Guide	4-M	6-M	Not stocked	9—.018

Outer Guide has integral parting bead—countersunk for F. H. Screws



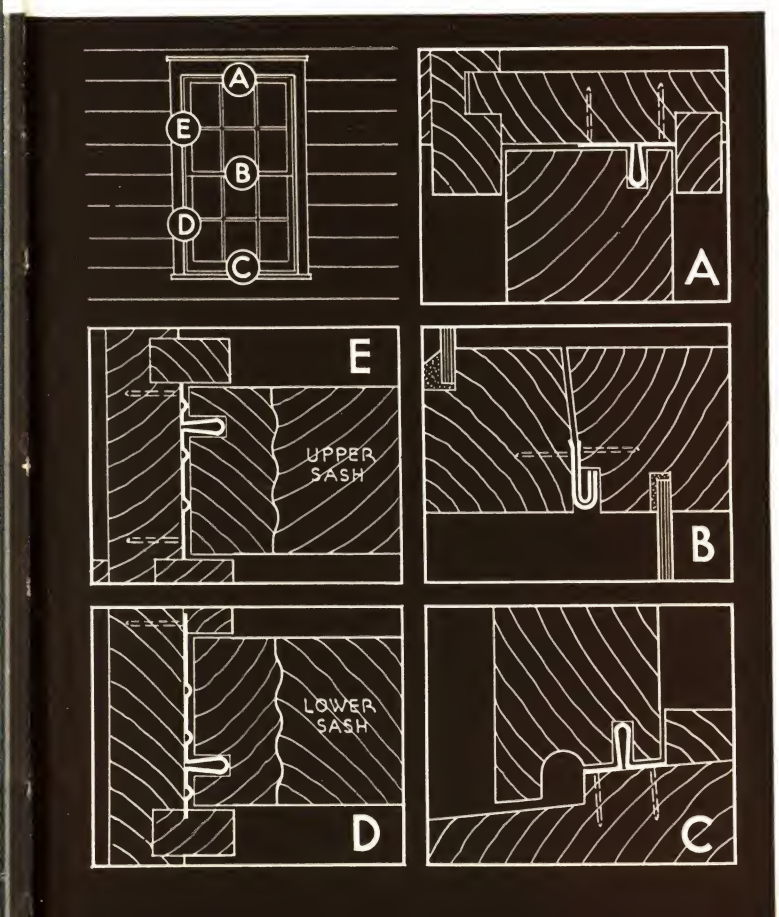


WEATHERSTRIPS
A • 280 • A • 281
• AUSTRAL WINDOWS •

Interlocking Type—Heads and sills are weatherstripped with rib type strips. Because of the rotating sash movement, the sides are weatherstripped with interlocking metal to metal contacts. The weatherstripping members are so designed and installed as to eliminate all hardware interference and permit installation from inside the building. The equipment is in exact accordance with the Austral Window Co.'s standards for easy operation.

EQUIPMENT A-280—ZINC				
Location	Strip	Ga.—In.	Strip	Ga.—In.
Head	1R	9—.018	....	....
Sill	2R	9—.018	....	....
Meeting Rail	17	11—.024	18	9—.018
Upper Sides	15	9—.018	112	9—.018
Lower Sides	112	9—.018	19	9—.018
*Groove Liners	16	9—.018	....	....
EQUIPMENT A-281—BRONZE				
Head	1RB	25—.0179	....	....
Sill	2RB	25—.0179	....	....
Meeting Rail	17B	23—.0225	18B	25—.0179
Upper Sides	15B	26—.016	112B	25—.0179
Lower Sides	112B	25—.0179	19B	22—.0179
*Groove Liners	16B	26—.016	....	....

Alternate No. 1—Substitute Heavy Sills
*Alternate No. 2—Add Groove Liners Head and Sill



WEATHERSTRIPS
P • 290 • P • 291
WILLIAMS PIVOT WINDOWS

Rib Type—The equipment members and their installation is identical with equipment DH-200 and 201 (see page 2). Sash operating hardware is installed in the face of the side filler members which are plowed to receive the weatherstripping rib which prevents air or moisture infiltration between the filler strip and frame. The interlocking corrugations between the filler strip and the sash proper prevent air leakage at these points.

EQUIPMENT P-290—ZINC				
Location	1⅜" Sash	1¾" Sash	2¼" Sash	Ga.—In.
Head	2R	2R	2R	9—.018
Sill	1R	1R	1R	9—.018
M.R. Hook	11	11	11	12—.028
M.R. Flat	12	12	12	10—.020
Upper Sides	4C-⅜	6C-⅜	7C-⅜	9—.018
Lower Sides	6C-½	7C-½	8C-½	9—.018
EQUIPMENT P-291—BRONZE				
Head	2RB	2RB	2RB	25—.0179
Sill	1RB	1RB	1RB	25—.0179
M.R. Hook	11B	11B	11B	22—.0253
M.R. Flat	12B	12B	12B	24—.020
Upper Sides	4CB-⅜	6CB-⅜	7CB-⅜	25—.0179
Lower Sides	6CB-½	7CB-½	8CB-½	25—.0179

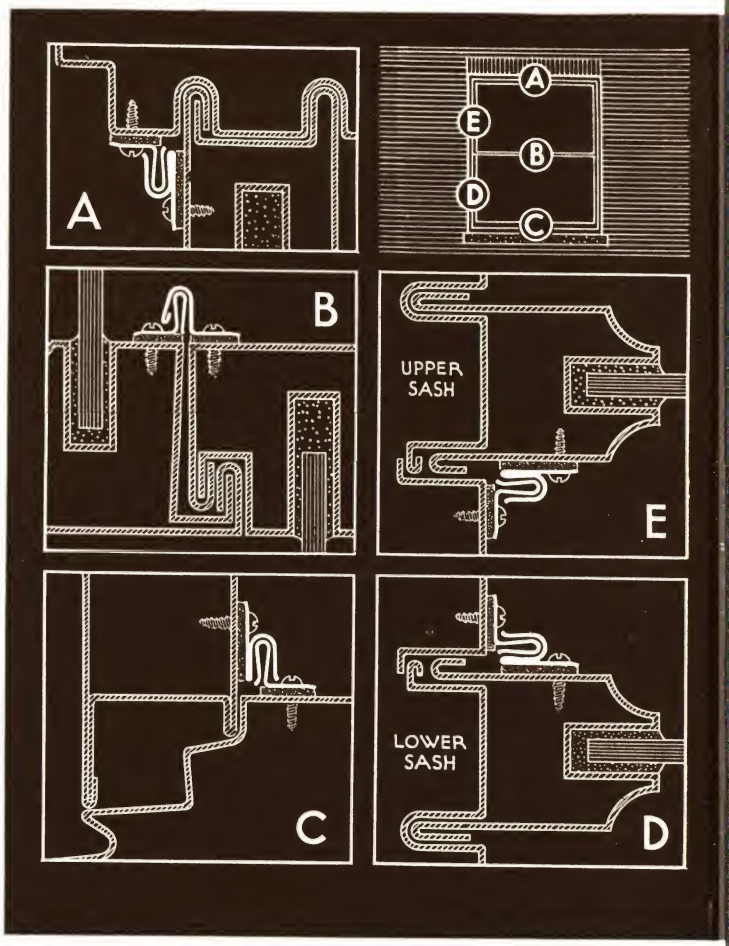
Alternate No. 1—Substitute Heavy Sills
Alternate No. 2—Kerf upper sides to Blind Stop

PROTEX Weatherstrips

WEATHERSTRIPS
DH • 520 • 521
HOLLOW METAL DOUBLE HUNG

Interlocking Type—Standard manufacturing tolerances in fabrication together with expansion and contraction require that hollow metal or Kalamein double hung windows be weatherstripped with perfect interlocks that will not increase sliding friction. The strips are backed with specially treated felt to eliminate leakage under strips due to uneven surfaces. Note that H strips slide on EI members which eliminates side play, assuring easy operation. Where hardware interferes at meeting rails with the members detailed, it is necessary to substitute spring bronze between sections.

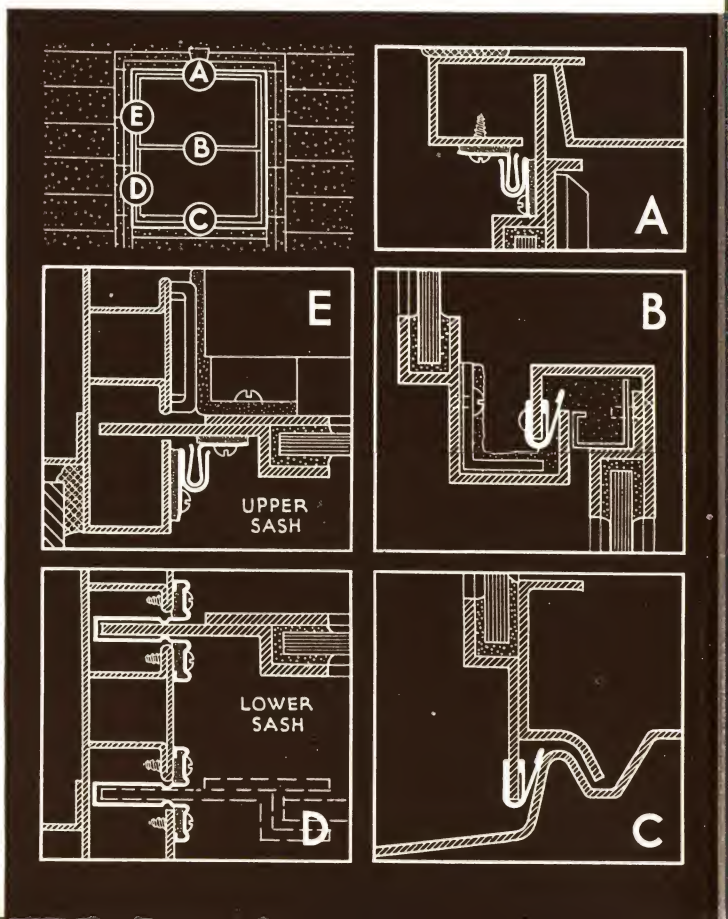
EQUIPMENT DH-520—ZINC				
Location	Strip	Ga.—In.	Strip	Ga.—In.
Head	18	9—.018	36	12—.028
Sill	18	9—.018	36	12—.028
Meeting Rail	17	11—.024	18	9—.018
Upper Sides	18	9—.018	36	12—.028
Lower Sides	18	9—.018	36	12—.028
EQUIPMENT DH-521—BRONZE				
Head	18B	25—.0179	36B	22—.0225
Sill	18B	25—.0179	36B	22—.0225
Meeting Rail	17B	23—.0225	18B	25—.0179
Upper Sides	18B	25—.0179	36B	22—.0225
Lower Sides	18B	25—.0179	36B	22—.0225
Note—Strips backed with Waterproof Felt				

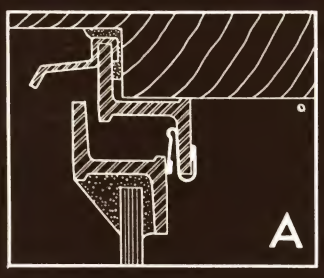


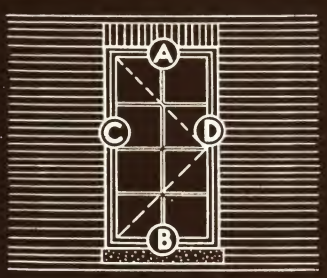
WEATHERSTRIPS
DH • 530 • 531
PLATE TYPE DOUBLE HUNG

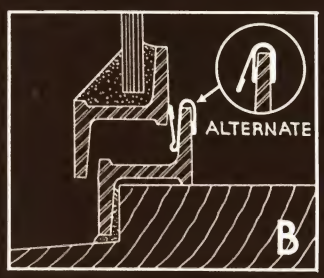
Channel Type—Plate type double hung windows require interlocking weatherstrip members located at the outermost points of air and water ingress. Because of the siphonage action at the lower sides, a special patented (U. S. Patent No. 2,050,369) channel strip is inserted in the jamb slots eliminating side play and wind and water entrance into the frame box and around the sash sections. All members are felt backed. Special stops and bumpers are furnished to complete the equipment. Tests at R. W. Hunt Laboratories show but .367 cu. ft. of air leakage per foot of sash perimeter infiltration loss.

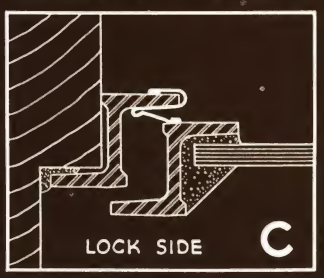
EQUIPMENT DH-530—ZINC AND BRONZE				
Location	Strip	Ga.—In.	Strip	Ga.—In.
Head	18	9—.018	36	12—.028
Sill	501	34—.0063	..	.....
Meeting Rail	501	34—.0063	..	.....
Upper Sides	18	9—.018	36	12—.028
Lower Sides	506	10—.020	..	.....
EQUIPMENT DH-531—BRONZE				
Head	18B	25	36B	22—.0253
Sill	501	34	...	.....
Meeting Rail	501	34	...	.....
Upper Sides	18B	25	36B	22—.0253
Lower Sides	506B	25	...	.....
Note—Strips backed with Waterproof Felt				

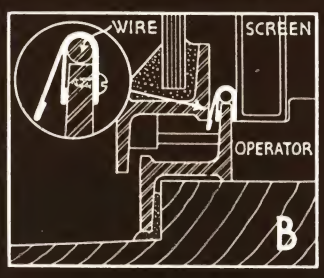


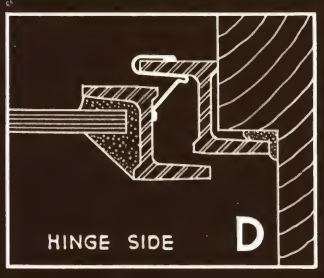












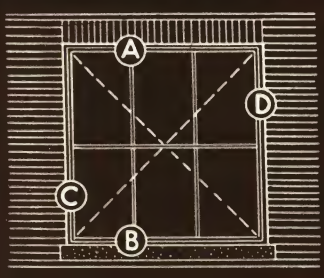
WEATHERSTRIPS
••• SC • 540 •••
STEEL CASEMENT WINDOWS

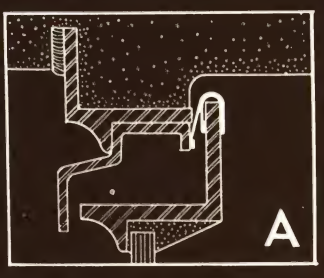
Spring Bronze Type—Actual experience in the weatherstripping of steel casements has developed this present 500 Series (U.S. Patent No. 2,117,-973). They require weatherstrips of high tempered spring bronze of the least thickness to eliminate binding, closure interference, and of design applicable to all makes of standard window units. This weatherstrip permits close clamping to the steel sections reinforced at corners with drive-ins to assure permanence and eliminate possible removal or misalignment. Alternate Detail B illustrates a method of elevating the sill strip to obviate interference with inside sash operators. It carries the strip and reinforces it over that part of the sash which is cut out for passage of operator arm. Strip 500-H is for hinge sides of casements having a sectional lap of not more than $\frac{3}{16}$ inch.

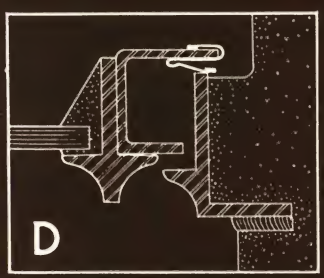
EQUIPMENT SC-540—BRONZE

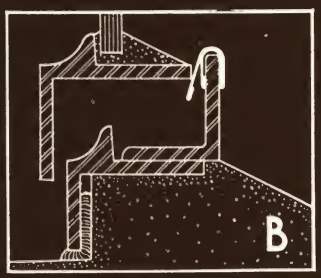
Location	Strip	Ga.—In.	Types
Head	500	34—.0063	
Sill	500	34—.0063	Light and
Centers	500	34—.0063	Medium
Lock Side	500	34—.0063	Casements
Hinge Side	500H	34—.0063	

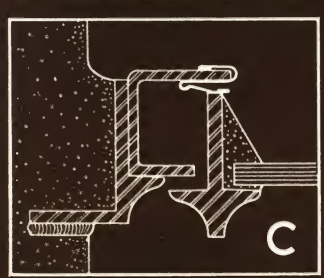
Alternate No. 1—Substitute No. 501 at Sill
Alternate No. 2—Add Elevator Wire at Sill

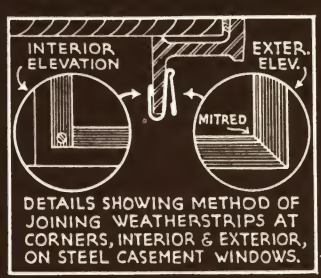












DETAILS SHOWING METHOD OF JOINING WEATHERSTRIPS AT CORNERS, INTERIOR & EXTERIOR, ON STEEL CASEMENT WINDOWS.

WEATHERSTRIPS
••• IS • 550 •••
STEEL INDUSTRIAL WINDOWS

Spring Bronze Type—The same 500 series strips as used for Steel Casements are used for Steel Indutrial Windows as indicated in the equipment schedule below. Strip 501 is used in all positions when there is a possibility of dirt or moisture interfering with the contact closures. Due to ventilator warpage, it is sometimes necessary to apply a supplementary $\frac{3}{8}$x$\frac{3}{8}$ inch steel angle to the bottom of the ventilator section aligned with the frame member to form a perfect contact for the flange of the weatherstrip member. The standard strip will fit most of the various makes of solid steel section industrial windows. Because some windows depart from the customary standards, the flanged strip 501 is made, where so required, with extra wide flanges and additional distance between the sides to compensate for these manufacturing variances.

EQUIPMENT IS-550—BRONZE

Location	Strip	Ga.—In.	Ventilators
Head	501	34—.0063	All types
Sill	501	34—.0063	All types
Sides	500	34—.0063	Project in
Sides	500	34—.0063	Project out
Sides	500	34—.0063	Center Pivoted

Alternate No. 1—Substitute No. 501 at Sides
Alternate No. 2—Extra wide flange on No. 501

PROTEX Weatherstrips

WEATHERSTRIPS
C • 403 • • 403 • B
WOOD CASEMENT WINDOWS

Interlocking Type—Since there are no definite design standards established by woodworking mills in the manufacture of inswinging wood casement windows, weatherstripping for these units must be designed to be applicable to any variation. The detail below illustrates a strong, concealed metal to metal interlock with a most effective self-draining sill trough adaptable to sash 1¾ inch or greater in thickness. Moisture following down the side members collects in the trough and drains out through weep holes which are furnished with wind breaks.

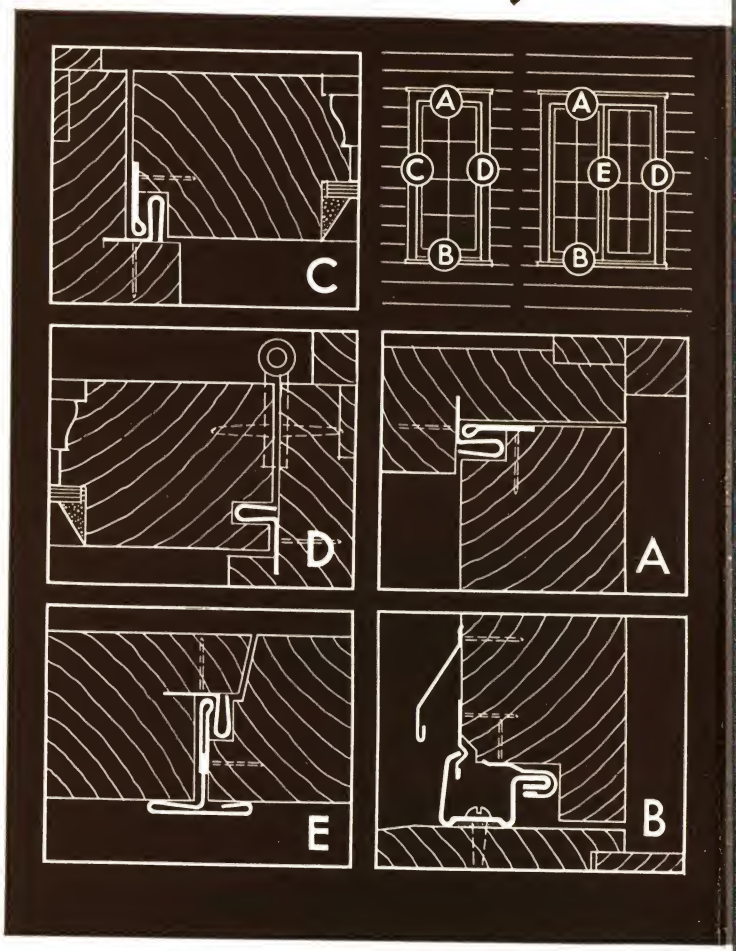
EQUIPMENT C-403—ZINC

Location	Strip	Ga.—In.	Strip	Ga.—In.
Head	19	9—.018	112	9—.018
Sill	70 detailed—others optional			15—.040
Center (Double)	19	9—.018	112	.....
Lock Side	19	9—.018	112	9—.018
Hinge Side	19 or 18	9—.018	...	.....

EQUIPMENT C-403B—BRONZE

Head	19B	25—.0179	112B	25—.0179
Sill	71 detailed—others optional			18—.040
Center (Double)	19B	25—.0179	112B	25—.0179
Lock Side	19B	25—.0179	112B	25—.0179
Hinge Side	19B or 18B	25—.0179	....	.....

Alternate No. 1—Add Metal or Wood Astragal
Alternate No. 2—Add Metal or Wood Dripcaps



WEATHERSTRIPS
C • 404 • • 404 • B
WOOD CASEMENT WINDOWS

Interlocking Type—This alternate design of weatherstripping for inswinging wood casement windows is a metal to metal interlock in which one member is enclosed within the other. Air infiltration and moisture passage is in this type of interlock reduced to a minimum. The sill trough shown in the detail below is an alternate assembly particularly adaptable for sash 1⅜ inch or less in thickness. Weatherstrip members on receiving jambs have turned edges to insure proper indenture in the wood to eliminate sharp, protruding edges.

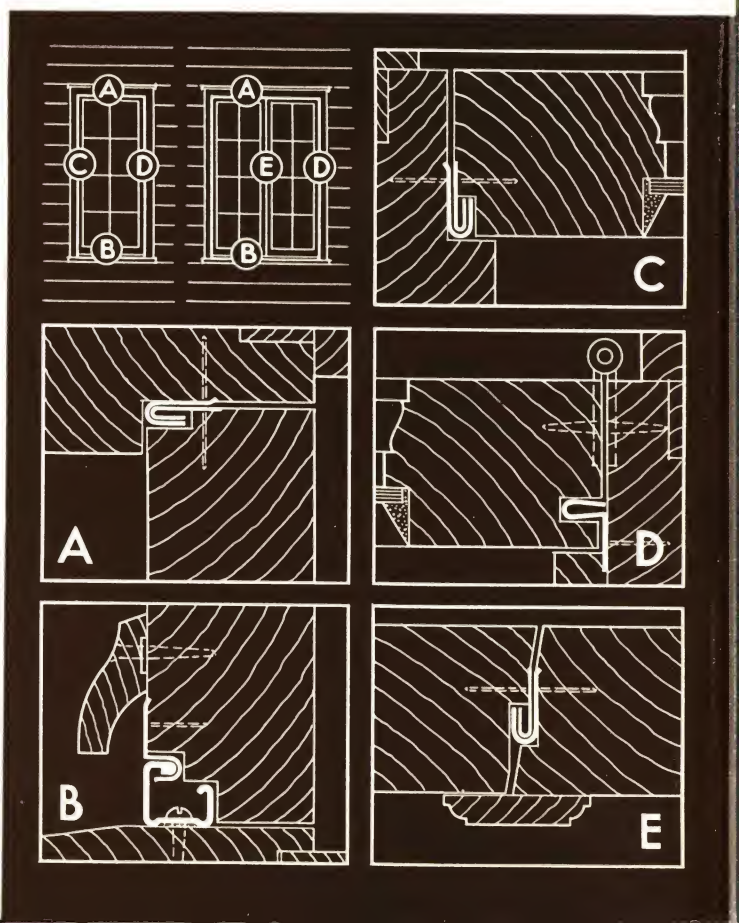
EQUIPMENT C-404—ZINC

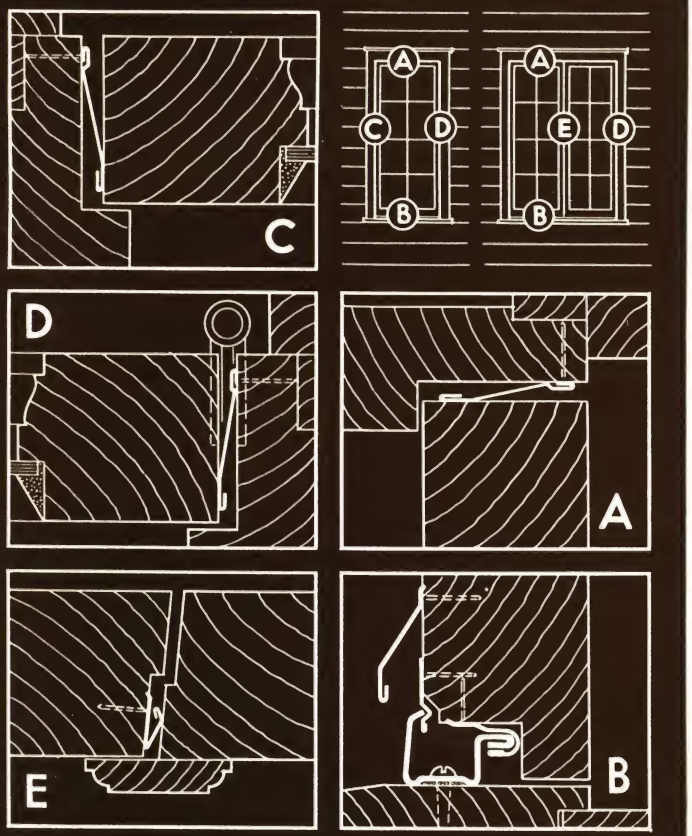
Location	Strip	Ga.—In.	Strip	Ga.—In.
Head	11	12—.028	12	10—.020
Sill	070 detailed—others optional			15—.040
Center (Double)	11	12—.028	12	10—.020
Lock Side	11	12—.028	12	10—.020
Hinge Side	18	9—.018	..	.....

EQUIPMENT C-404B—BRONZE

Head	11B	.....	12B	24—.020
Sill	071 detailed—others optional			18—.040
Center (Double)	11B	22—.025	12B	24—.020
Lock Side	11B	22—.025	12B	24—.020
Hinge Side	18B	25—.0179	...	.....

Alternate No. 1—Add Metal or Wood Astragal
Alternate No. 2—Add Metal or Wood Dripcaps





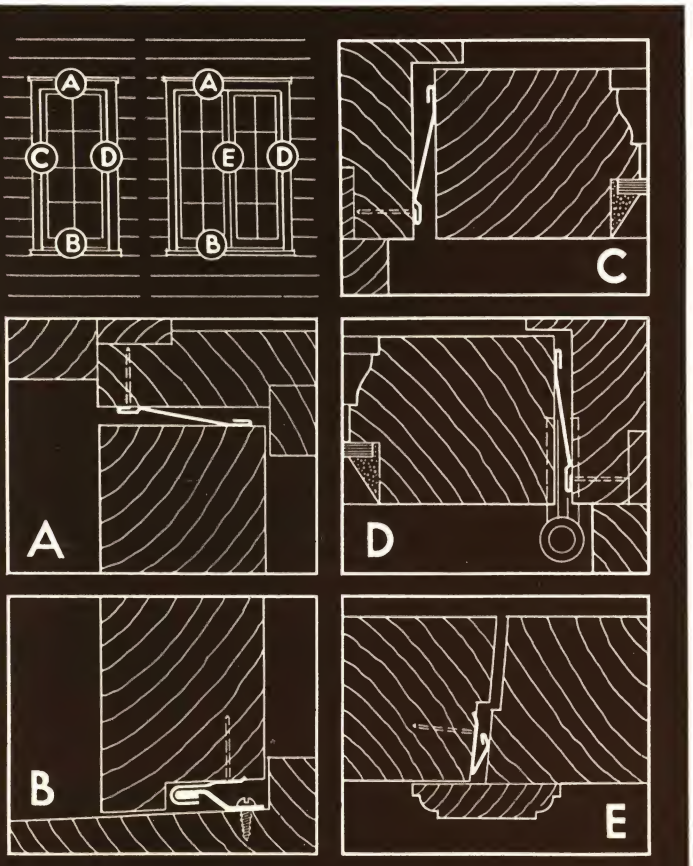
WEATHERSTRIPS
C • 405 • • 405 • B
WOOD CASEMENT WINDOWS

Spring Bronze Type—For inswinging casements under normal conditions, spring bronze of correct gauge, temper, and hardness is equally as effective as the interlocking type of weatherstrip. It has the advantage that it is adjustable after installation to seal openings of as wide as 3/8 inch. Edges are hemmed for added rigidity and to eliminate "humming." Requiring no rabbeting or plowing of the sash, the cost is less than the interlocking type. Sill weatherstripping is the same as required for the interlocking type of equipment.

EQUIPMENT C-405—ZINC AND BRONZE				
Location	1 3/8" Sash	1 3/4" Sash	2 1/4" Sash	Ga.—In.
Head	1 1/4"-20	1 3/8"-20	1 3/4"-20	31—.009
Sill	70 detailed—others optional			18—.040
Center (Double)	83	83	83	32—.0079
Lock Side	1 1/4"-20	1 3/8"-20	1 3/4"-20	31—.009
Hinge Side	1 1/4"-20	1 3/8"-20	1 3/4"-20	31—.009

EQUIPMENT C-405B—BRONZE				
Head	1 1/4"-20	1 3/8"-20	1 3/4"-20	31—.009
Sill	71 detailed—others optional			18—.040
Center (Double)	83	83	83	32—.0079
Lock Side	1 1/4"-20	1 3/8"-20	1 3/4"-20	31—.009
Hinge Side	1 1/4"-20	1 3/8"-20	1 3/4"-20	31—.009

Note—Select desired sill in specifying equipment



WEATHERSTRIPS
C • 406 • • 406 • B
WOOD CASEMENT WINDOWS

Spring Bronze Type—Since outswinging casement sash close against an inside rabbeted jamb or stop, they are less susceptible to moisture and air leakage under normal conditions than are inswinging casements. In the average installation, this spring bronze type of weatherstripping together with this strong, flexible hook type of sill equipment is entirely adequate. For severe exposures, use either of the interlocking types of weatherstripping illustrated on page 9, set in a reverse position for head and side jambs.

EQUIPMENT C-406—ZINC AND BRONZE				
Location	1 3/8" Sash	1 3/4" Sash	2 1/4" Sash	Ga.—In.
Head	1 1/4"-20	1 3/8"-20	1 3/4"-20	31—.009
Sill	80 detailed—others optional			15—.040
Center (Double)	83	83	83	.....
Lock Side	1 1/4"-20	1 3/8"-20	1 3/4"-20	31—.009
Hinge Side	1 1/4"-20	1 3/8"-20	1 3/4"-20	31—.009

EQUIPMENT C-406B—BRONZE				
Head	1 1/4"-20	1 3/8"-20	1 3/4"-20	31—.009
Sill	81 detailed—others optional			18—.040
Center (Double)	83	83	83	.....
Lock Side	1 1/4"-20	1 3/8"-20	1 3/4"-20	31—.009
Hinge Side	1 1/4"-20	1 3/8"-20	1 3/4"-20	31—.009

Note—Select desired sill in specifying equipment

PROTEX Weatherstrips

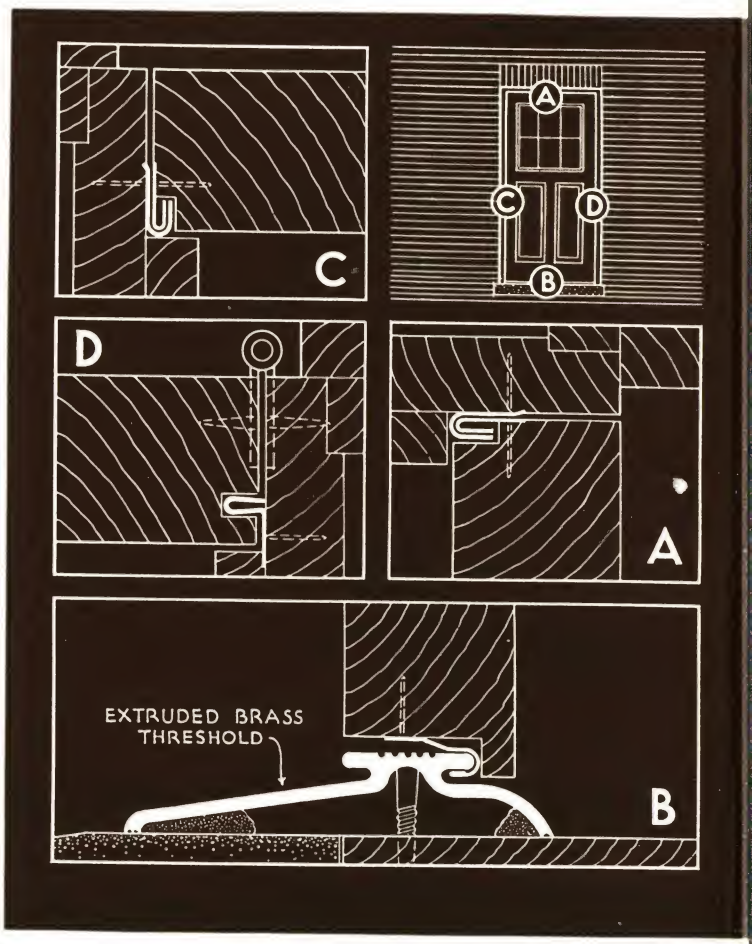
WEATHERSTRIPS
D • 404 • • 404B
• WOOD DOORS •

Interlocking Type—Since the construction of door frames is similar to frames for casement windows, the head and side jamb weatherstripping for doors is practically the same as that required for casements. Because the door sill is the point of maximum leakage and must take severe traffic abuse, only the best heavy-duty equipment is advocated. The bottom of the door should have sufficient clearance over heavy carpets, mats, etc., to avoid conflict with the door bottom hook. See also pages 12 and 13 for alternate sill equipment.

EQUIPMENT D-404—ZINC				
Location	Strip	Ga.—In.	Strip	Ga.—In.
Head	11	12—.028	12	10—.020
Sill	50 detailed—others optional			.....
Center	11	12—.028	12	10—.020
Lock Side	11	12—.028	12	10—.020
Hinge Side	18	9—.018	..	.....

EQUIPMENT D-404B—BRONZE				
Head	11B	22.. ..	12B	24—.020
Sill	50 detailed—others optional			.....
Center	11B	22.. ..	12B	24—.020
Lock Side	11B	22.. ..	12B	24—.020
Hinge Side	18B	25—.129	...	.....

Note—Select desired sill in specifying equipment



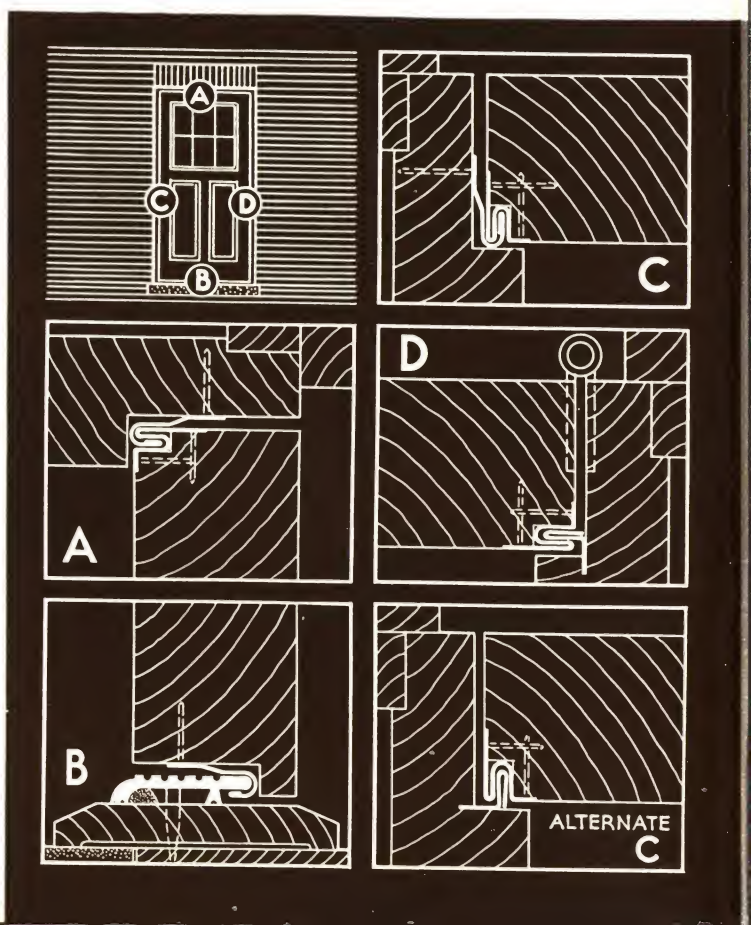
WEATHERSTRIPS
D • 407 • • 407B
• WOOD DOORS •

Interlocking Type—The interlocking equipment illustrated below is a sturdy door equipment especially designed to allow for at least a ¼ inch shrinkage without binding. The lip of the door member is guided into a flexible jamb member, assuring a positive closure at varying crack widths. Alternate equipment C substitutes a non-flexible EI jamb member adaptable to doors in less exposed locations. Various widths and heights of interlocking door sill equipment are provided to fulfill a wide variety of conditions (see pages 12 and 13).

EQUIPMENT D-407—ZINC				
Location	Strip	Ga.—In.	Strip	Ga.—In.
Head	109	9—.018	110	31—.009
Sill	41 detailed—others optional			.....
Center				
Lock Side	109	9—.018	110	31—.009
Hinge Side	109	9—.018	19	9—.018

EQUIPMENT D-407B—BRONZE				
Head	109B	25—.0179	110	31— .009
Sill	41 detailed—others optional			.....
Center				
Lock Side	109B	25—.0179	110	31— .009
Hinge Side	109B	25—.0179	19B	25—.0179

Alternate No. 1—Substitute No. 19 for 110 Strip
Note—Select desired sill



EDGINGS · BINDINGS · NOSINGS

EXTRUDED BRASS AND WHITE METAL

No. 790 BRASS
No. 790W WHITE METAL

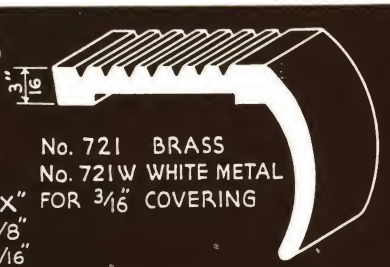
No. 780 BRASS

No. 770 BRASS

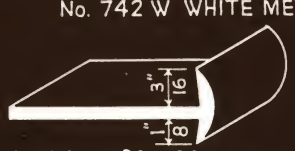
No. 760 BRASS

		"X"
No. 740	BRASS	1/8"
No. 741	BRASS	3/16"
No. 742	BRASS	1/4"
No. 740W	WHITE METAL	1/8"
No. 741W	WHITE METAL	3/16"
No. 742W	WHITE METAL	1/4"

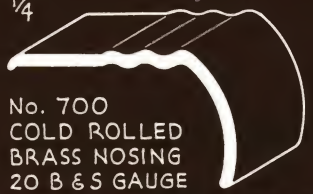
		"X"
No. 750	BRASS	1/8"
No. 751	BRASS	3/16"
No. 750W	WHITE METAL	1/8"
No. 751W	WHITE METAL	3/16"



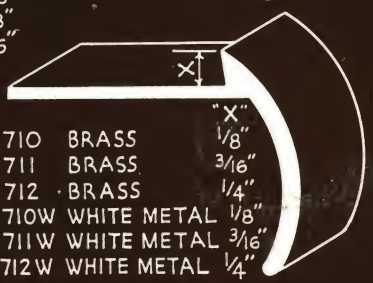
No. 721 BRASS
No. 721W WHITE METAL
FOR 3/16" COVERING



No. 730 BRASS
No. 730W WHITE METAL



No. 700
COLD ROLLED
BRASS NOSING
20 B & S GAUGE



		"X"
No. 710	BRASS	1/8"
No. 711	BRASS	3/16"
No. 712	BRASS	1/4"
No. 710W	WHITE METAL	1/8"
No. 711W	WHITE METAL	3/16"
No. 712W	WHITE METAL	1/4"

No. 122 6⅛" x ¼"
SILL PLATE EXTRUDED BRASS

BRASS THRESHOLDS

USE WITH INTERLOCKING SILLS
TO SECURE COVERAGE IN EXCESS
OF PRESENT STANDARD WIDTHS

No. 82 4½" x 1½"

No. 123 3" x ½"

WATERPROOF SELF DRAINING
EXTRUDED BRASS SILL FOR
OUTSWINGING DOORS

No. 27 5¼" x ½"

No. 120

No. 121

THRESHOLD ELEVATORS
EXTRUDED BRASS

No. 83 3⅜" x ½"

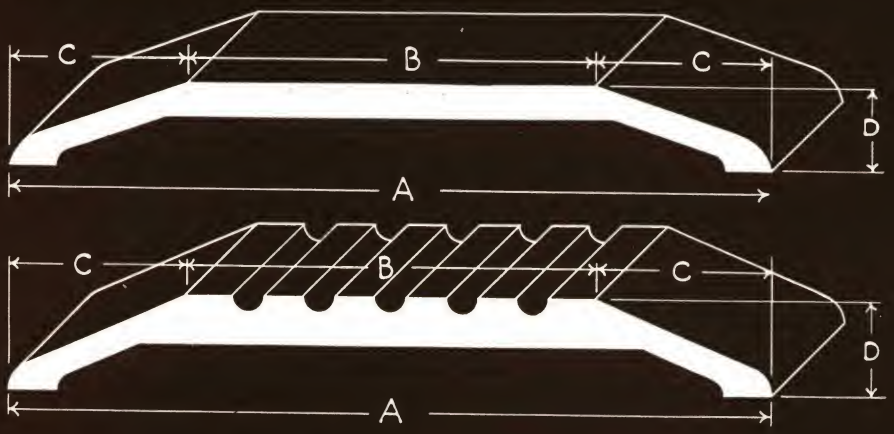
FULL SILL COVERAGE
ADJUSTABLE WATERPROOF SILL
EXTRUDED BRASS PATENTED

No. 76-A
EXTRUDED ALUMINUM
DOOR & WINDOW DRIP

SCALE
FULL
SIZE

PROTEX Weatherstrips

EXTRUDED METAL SADDLES



BRASS — PLAIN TOP

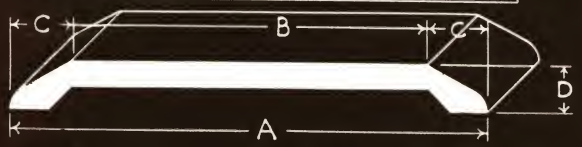
No.	A	B	C	D
71-D	3"	2 3/8"	5/16"	1/4"
58	4"	2 1/8"	15/16"	7/16"
59	5	3 1/2"	3/4"	7/16"
60	6"	3 1/8"	1 7/16"	1/2"

BRASS — FLUTED TOP

56	3 1/2"	1 15/16"	25/32	15/32"
61	4"	2 1/8"	15/16"	1/2"
62	5"	2 11/16"	1 5/32"	1/2"
63	6"	2 15/16"	1 17/32"	7/16"

WHITE METAL — FLUTED TOP

61-W	4"	1 3/4"	1 1/8"	5/8"
62-W	5"	2 3/4"	1 1/8"	5/8"
63-W	6"	3 3/4"	1 1/8"	5/8"



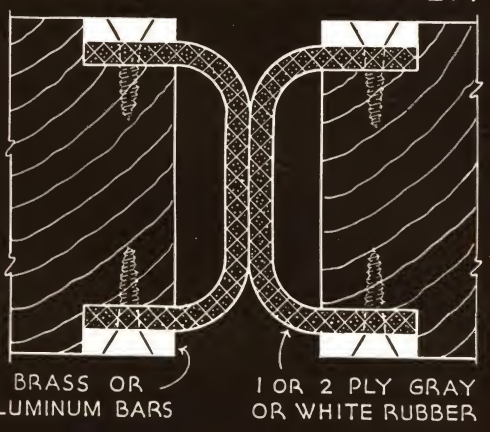
BRASS FLOOR PLATES

No.	A	B	C	D
70-A	2 1/4"	1 3/4"	1/4"	3/16"
70-B	2 1/2"	1 7/8"	5/16"	1/4"
71-D	3"	2 3/8"	5/16"	1/4"

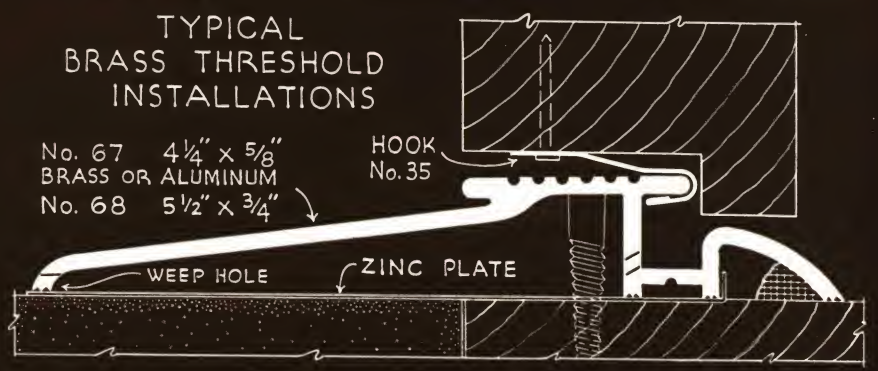
WHITE METAL FLOOR PLATES

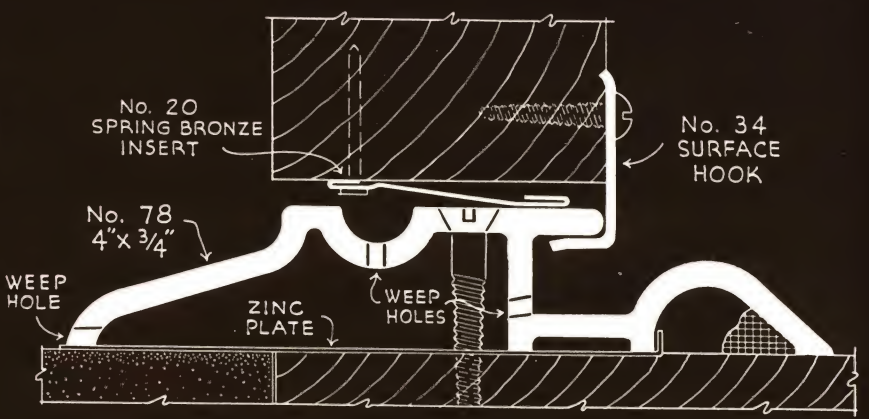
70-W	2 1/4"	1 11/16"	9/32"	3/8"
58-W	4"	1 3/4"	1 1/8"	5/8"

DOUBLE DOOR CENTER

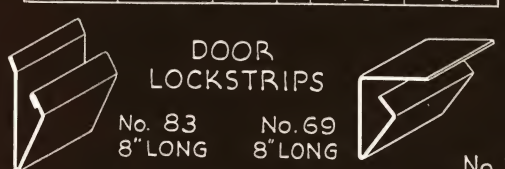


TYPICAL BRASS THRESHOLD INSTALLATIONS





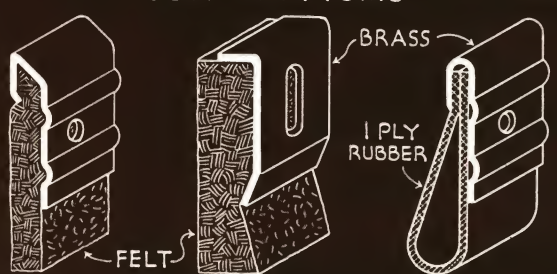
DOOR LOCKSTRIPS



No. 83 8" LONG

No. 69 8" LONG

DOOR BOTTOMS



No. 31 No. 32 No. 38

BRASS THRESHOLDS


No. 49 3½" x 5/8"


No. 52L 3½" x 5/8"
No. 52 (SAME WITHOUT CENTER LEG)


No. 150 4¼" x 9/16"


No. 53L 4¼" x 5/8"
No. 53 (SAME WITHOUT CENTER LEG)


No. 50 4½" x 7/8"
BRASS OR ALUMINUM


No. 54 4½" x 7/8"
BRASS OR ALUMINUM


No. 51 5½" x 7/8"
No. 55 5" x 7/8"


No. 57 6" x 7/8"

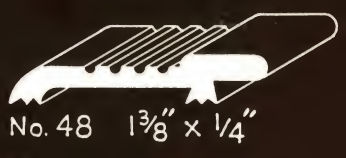

No. 66 3½" x 5/8"
BRASS OR ALUMINUM

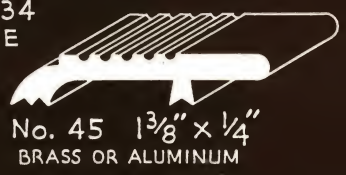

No. 65 2¾" x 5/8"

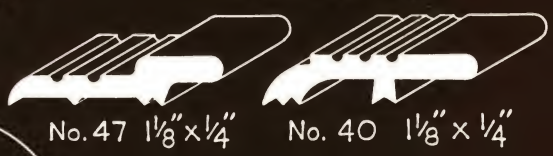

No. 33 HOOK BRASS

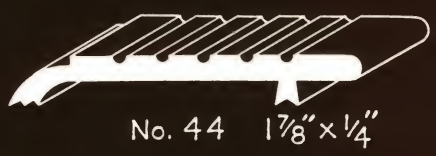

No. 35 HOOK BRONZE

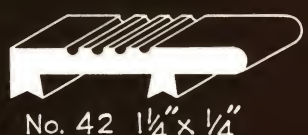

No. H-34 SURFACE HOOK BRASS OR ALUMINUM


No. 48 1⅜" x ¼"


No. 45 1⅜" x ¼"
BRASS OR ALUMINUM


No. 47 1⅛" x ¼"
No. 40 1⅛" x ¼"


No. 44 1⅞" x ¼"


No. 42 1¼" x ¼"

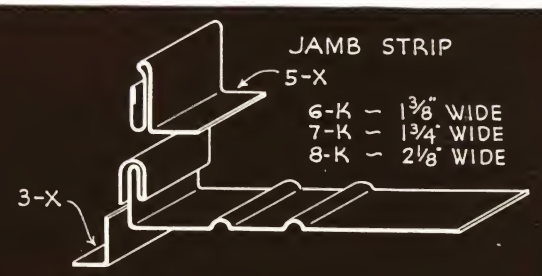

No. 41 1½" x ¼"

SCALE FULL SIZE

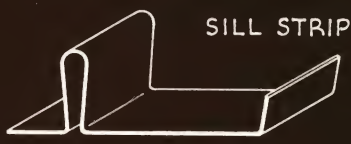
PROTEX Weatherstrips

No. 4HF – 1⅜" SASH
No. 6HF – 1¾" SASH

No. 4TF – 1⅜ SASH
No. 6TF – 1¾ SASH

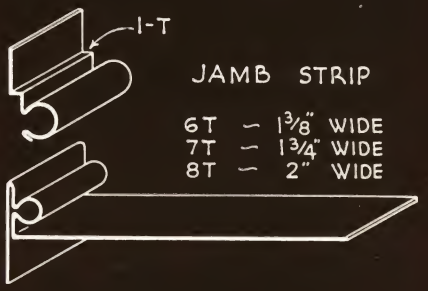


6-K – 1⅜" WIDE
7-K – 1¾" WIDE
8-K – 2⅛" WIDE

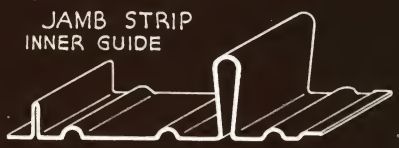


No. 4RF – 1⅜" SASH
No. 6RF – 1¾" SASH

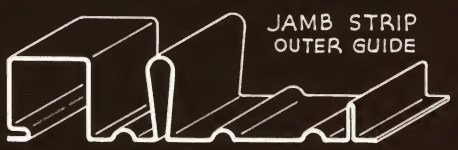
No. 11 S – 1⅜" SASH
No. 12 S – 1¾" SASH



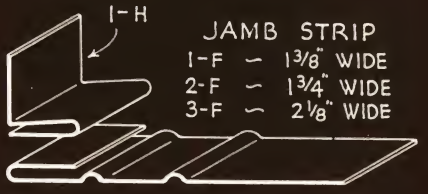
6T – 1⅜" WIDE
7T – 1¾" WIDE
8T – 2" WIDE



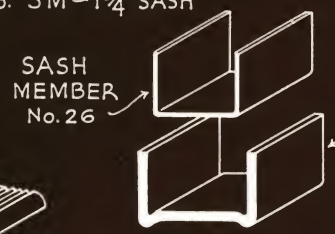
No. 4 M – 1⅜" SASH
No. 6 M – 1¾" SASH



No. 2 M – 1⅜ SASH
No. 3M – 1¾" SASH

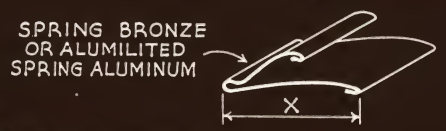


1-F – 1⅜" WIDE
2-F – 1¾" WIDE
3-F – 2⅛" WIDE

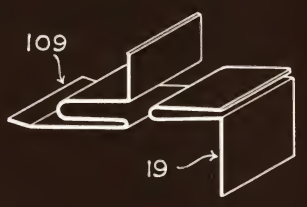


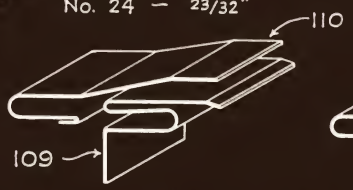
DOUBLE HUNG EQUIPMENT

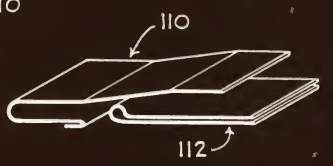
CASEMENT EQUIPMENT



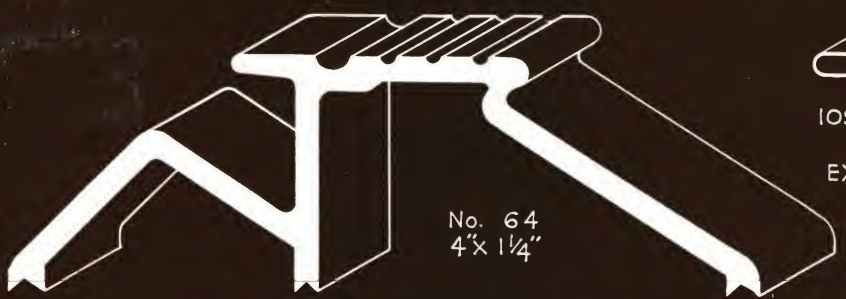
No. 22 – 1/2"
No. 23 – 19/32"
No. 24 – 23/32"

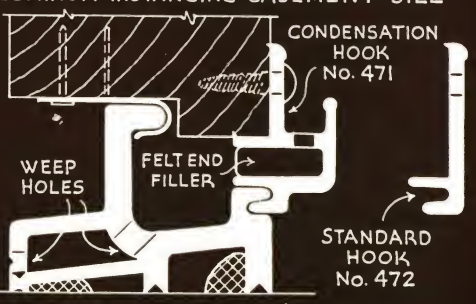






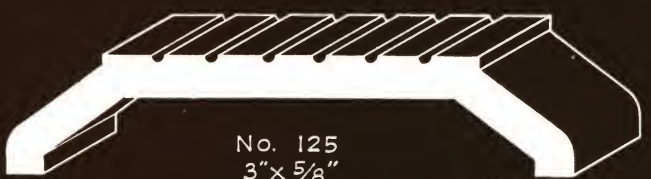
EXTRUDED ALUMINUM INSWINGING CASEMENT SILL

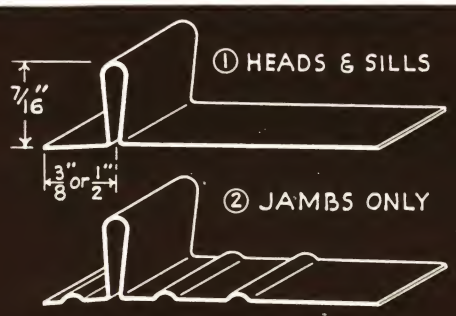




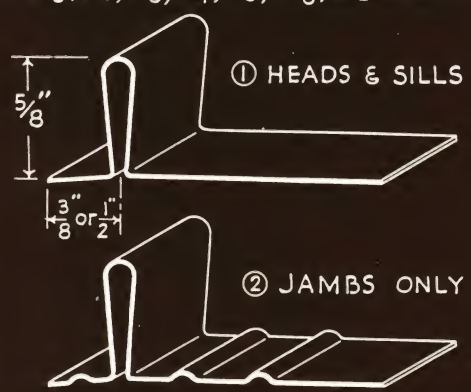
EXTRUDED ALUMINUM CASEMENT SILL FOR OUTSWINGING CSMT.

No. 470 FOR 1⅜" SASH
No. 475 FOR 1¾" SASH

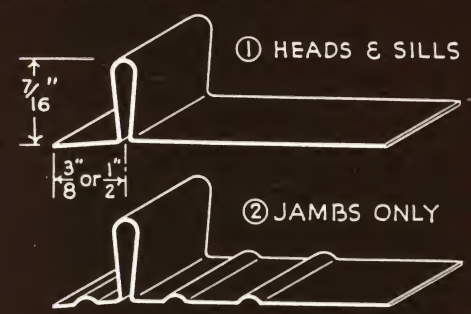




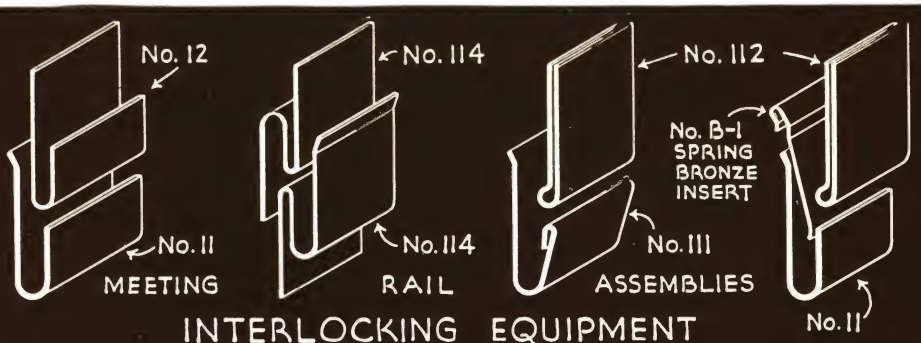
STANDARD ZINC RIB STRIPS
① 3/4", 1", 1 3/8", 1 1/2", 1 3/4", 2 1/8", 2 1/2" WIDTHS
② 1 3/8", 1 1/2", 1 5/8", 1 3/4", 1 7/8", 2 1/8", 2 1/2" WIDTHS



HEAVY DUTY ZINC RIB STRIPS
① 3/4", 1", 1 3/8", 1 1/2", 1 3/4", 2 1/8", 2 1/2" WIDTHS
② 1 3/8", 1 1/2", 1 5/8", 1 3/4", 1 7/8", 2 1/8" 2 1/2" WIDTHS

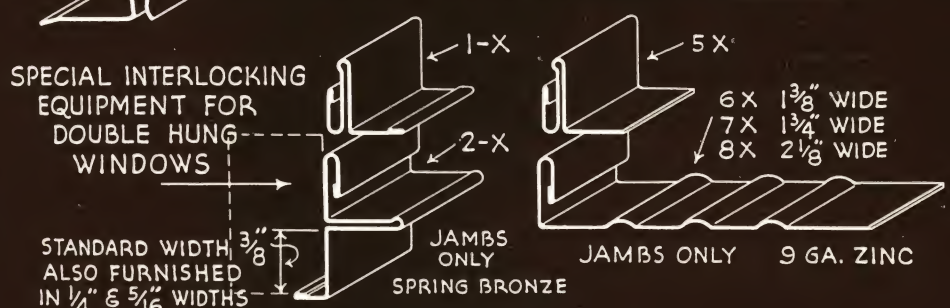


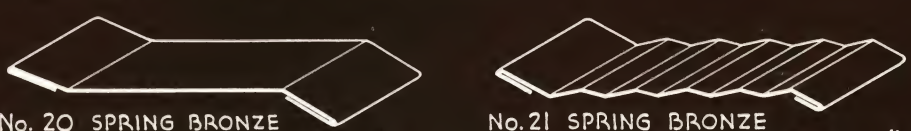
STANDARD COLD ROLLED BRONZE RIB STRIPS ① 3/4", 1", 1 3/8", 1 1/2", 1 3/4", 2 1/8", 2 1/2" WIDTHS
② 1 3/8", 1 1/2", 1 5/8", 1 3/4", 1 7/8", 2 1/8", 2 1/2" WIDTHS

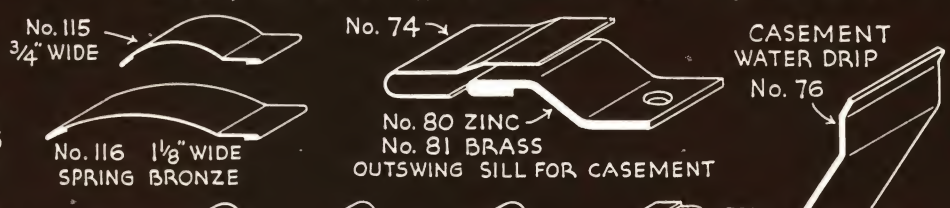


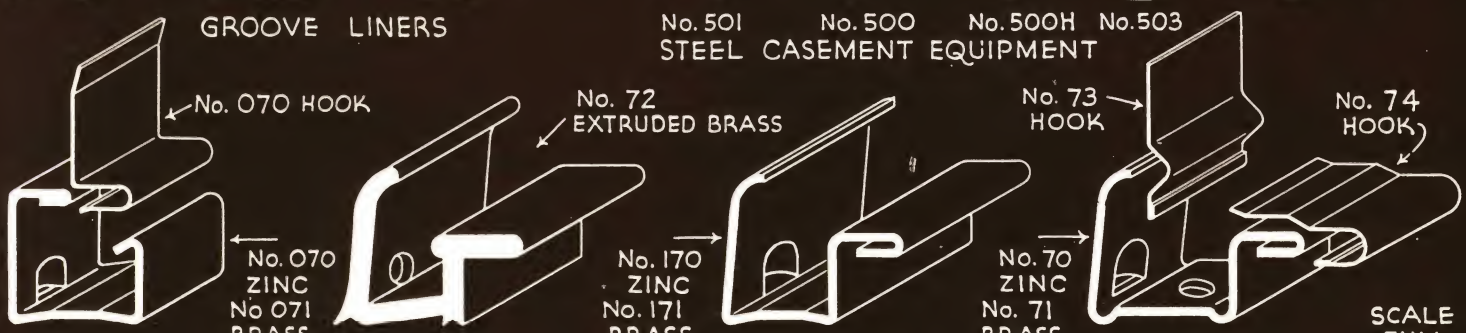
INTERLOCKING EQUIPMENT

CASEMENT & DOOR ASSEMBLIES







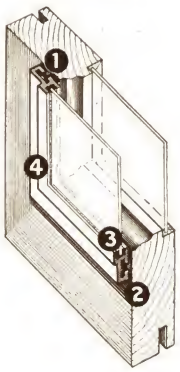


TROUGH ASSEMBLIES FOR CASEMENTS

PROTEX

WINTER PANES

NOTE: Winter Panes furnished for steel sash are made with a sliding ventilator at the bottom providing air circulation when required and they are installed like flat screens so that the casement may be operated through them without removal.



Winter Panes are furnished in Satin-Alumilite finish at slight extra cost.

The glass used is selective. It may be single strength, double strength or any of the other specially made glasses which provide light and heat corrections.

1. **INTEGRAL WITH SASH**—Winter Panes fit so neatly and snugly to the sash that they become an unobtrusive part of the window and are therefore accepted as all-year-around installation; for insulation of either cold in the winter or heat in the summer.

2. **REFRIGERATOR TYPE RUBBER GASKET**—The contact between Winter Panes and the sash is through live rubber; a refrigerator type gasket which will not permit freezing of the pane on to the sash.

3. **GLASS SET IN RUBBER**—The glass in Winter Panes which is selective is set in an extruded rubber glass channel easily removed if broken, but more strongly held in the frame than by other means.

4. **STRONG FRAME**—Made of extruded aluminum, the frame for Winter Panes is exceptionally rigid and strong and does not need the glass pane itself for reinforcement.

THE MODERN STORM SASH

STOPS "WEEPING" WINDOWS ★

One of the greatest nuisances to many a householder during the heating season is condensation. This occurs when warm, moisture-laden air comes in contact with cold surfaces, especially glass window panes, and turns into water or becomes frost which eventually melts with the same result. Every one knows that double glazing or storm sash installation stops this from happening. WINTER PANES solve this problem definitely and conveniently. They are the modern storm sash, integral with each window . . . double glazing easily and quickly applied to **any** window.

SAVES FUEL IN WINTER ★★

It is a well known fact (see statistics on the right) that storm sash save fuel. Here again it is double-glazing; two panes of glass with "dead air space" between them that does the trick, in other words insulation which stops the transmission of heat. WINTER PANES provide just exactly that, effective insulation, in the most convenient form. Simply fasten WINTER PANES on any window and you have the proper amount of "dead air-space" between the glass already in the window and the glass in the WINTER PANE.

KEEPS OUT HEAT IN SUMMER •

Modern air conditioning strives to maintain a comfortable temperature within the rooms of a house all the year round. Summer heat can be just as comfortable as winter cold. Proper insulation is half the job of air-conditioning . . . and windows are **half** the problem of insulation. As explained on the right, window openings are far more susceptible to heat transmission from either inside or outside than walls. Weatherstrip your windows and double-glaze them with WINTER PANES and you've got the problem licked.

★ One function of good heating equipment is to supply moisture to air that is heated. This is necessary for healthful humidity. However, unless outside wall surfaces are properly insulated condensation is bound to occur. Scientific tests show that the perfect balance is found in the use of double glass which makes it possible to raise humidity 45% without the appearance of surface moisture, as compared with single glass when it is not possible to carry more than 15% relative humidity with zero outside and 70° inside without having condensation.

★★ Infiltration and transmission are terms used by heating engineers to describe two kinds of heat loss. Check these effectively and maximum efficiency is obtained from any heating equipment. Again scientific tests show that about **four** times as much heat escapes through a single sheet of window glass as through the average wall section of the same area. You can stop infiltration by installing PROTEX weatherstripping. You can stop transmission by installing WINTER PANES.

• Insulation against cold **or** heat is accomplished by using a non-conductor of **heat**, something that will not absorb it or let it pass. The best non-conductor is a vacuum or partial-vacuum. Thus the so-called Thermos bottle. Double-glazing for windows is based upon this principle of insulation because it creates a "dead-air" space or partial vacuum between two panes of glass effectively stopping the passage of heat. Old-fashioned storm windows are used only in winter months during which the heating plant furnishes artificial circulation of air. WINTER PANES may be used, conveniently, all the year round as they do not interfere in any way with the opening or closing of the sash.

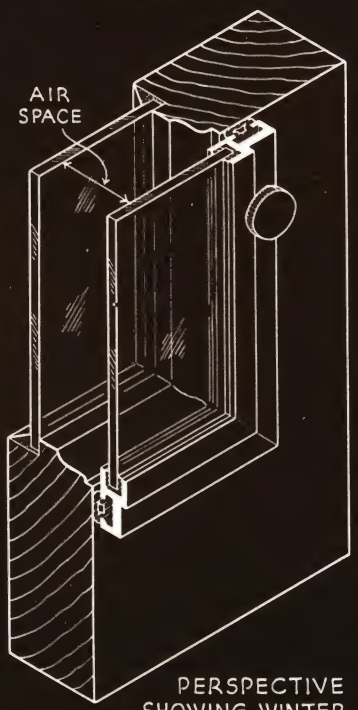
DETAILS OF WINTER PANES ~ THE MODERN STORM SASH

ELIMINATES ~ FROSTING • CONDENSATION • HEAT LOSS

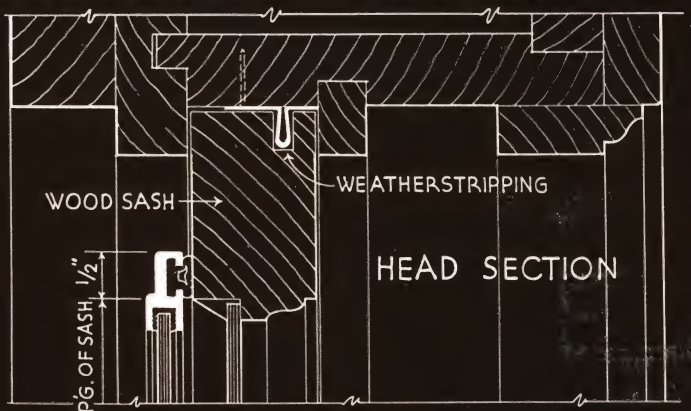
DETAIL SHOWING RABBET REQUIRED FOR FRAME ASSEMBLY No. 252 FLUSH TYPE

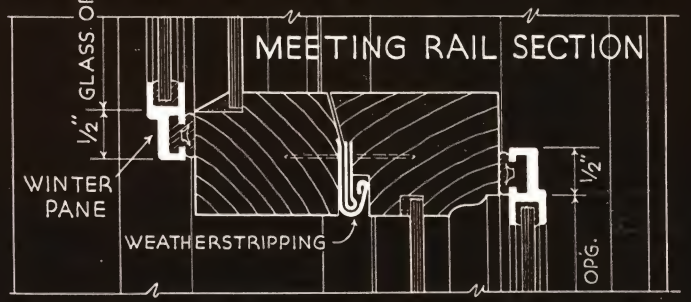
NOTE:- INSTALLATION CAN ALSO BE MADE ON EXTERIOR OF SASH

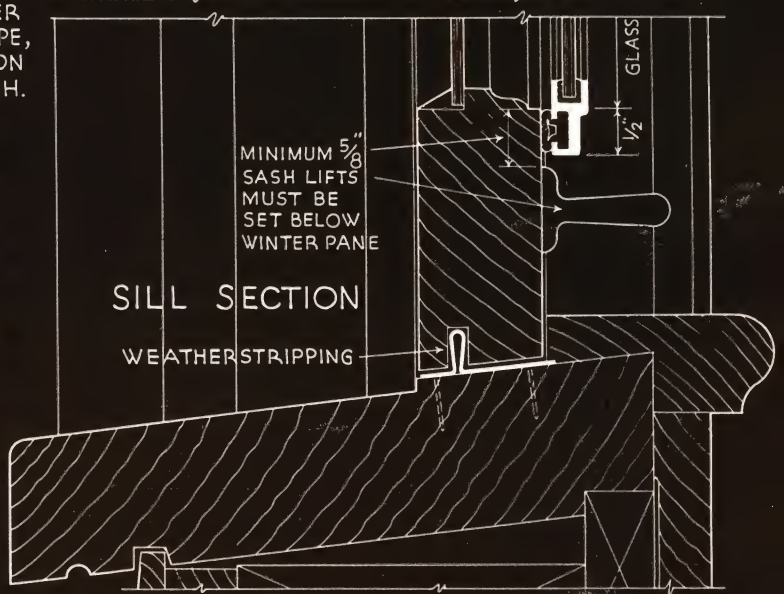
DETAIL SHOWING RABBET REQUIRED FOR FRAME ASSEMBLY No. 250 FLUSH TYPE



PERSPECTIVE SHOWING WINTER PANE, SURFACE TYPE, INSTALLED ON WOOD SASH.

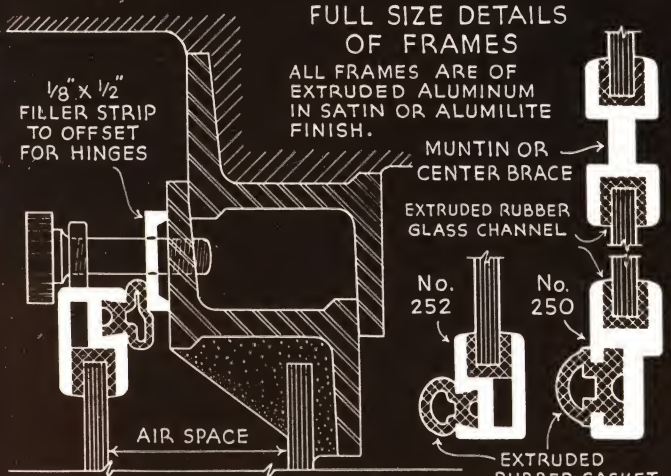




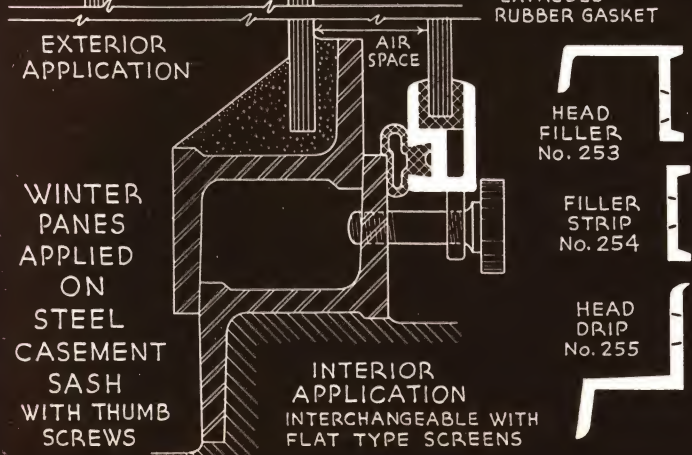


FULL SIZE DETAILS OF FRAMES

ALL FRAMES ARE OF EXTRUDED ALUMINUM IN SATIN OR ALUMILITE FINISH.



EXTERIOR APPLICATION



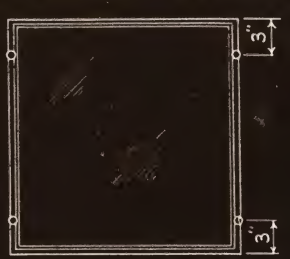
WINTER PANES APPLIED ON STEEL CASEMENT SASH WITH THUMB SCREWS

INTERIOR APPLICATION
INTERCHANGEABLE WITH FLAT TYPE SCREENS

WINTER PANES ON WOOD D.H. WINDOW

SURFACE TYPE INSTALLATION

REQUEST ADD. DETAILS & WEIGHT SCHEDULES FOR FLUSH INSTALL. ON NEW WORK



ELEVATION SHOWING LOCATION OF THUMB SCREWS HOLDING WINTER PANES TO WINDOWS

JAMB SECTION

PROTEX

Weatherstrips

METAL WEATHERSTRIPS

ALUMINUM THRESHOLDS

BRASS THRESHOLDS

CAULKING COMPOUNDS

KICK AND PUSH PLATES

STAIR NOSINGS AND EDGINGS

SPECIAL METAL SHAPES

PROTEX WEATHERSTRIP MF'G.CO.

CHICAGO · ILLINOIS

THE *Blue Book* OF WEATHERSTRIPS